

MIT Center for International Studies

Established in 1951, the Center for International Studies (CIS) is one of the premier organizations of its kind, a leading venue of global research and education. The relevance of the Center's work for problem-solving on issues of security, international political economy and technology, Asian security, the Middle East and other areas is reflected in dozens of programs, projects, and the work of faculty and staff through research, public outreach, and publications. Its international education program for MIT students, the MIT Science & Technology Initiative (MISTI), is a pioneering effort that has helped bring the world to 3000 students through internships abroad and educational events on campus.

The coronavirus pandemic shadowed every activity this year. Most every Center program was continued remotely, however, a testament to the ingenuity and perseverance of the team. Research travel was curtailed, likely the most damaging impact of the virus on research.

The Center conducted two town halls for all staff, faculty, and researchers. The first was on the coronavirus. The second was on diversity and inclusion. Both were led by knowledgeable and skilled moderators from MIT, and helped answer a multiplicity of questions on these two urgent matters.

Richard J. Samuels, Ford International Professor of Political Science, is director of the Center, with the active participation of about 30 faculty and researchers, 40 staff, and 30 graduate students, along with numerous distinguished affiliated scholars and practitioners. CIS's innovative exploration of international issues enriches MIT, the nation, and the world.

Leadership of the Center includes Professor Samuels; Dr. John Tirman, executive director; Chappell Lawson, Associate Professor of Political Science, director of MISTI; and Taylor Fravel, Arthur and Ruth Sloan Professor of Political Science, director of the Security Studies Program.

MIT International Science and Technology Initiatives (MISTI)

MISTI serves as the hub for global education programs across campus. MISTI provides international education and research opportunities for MIT students and faculty through student internship, research, entrepreneurship, teaching, and study abroad programs; faculty funds; international events on campus; and partnerships with companies, research institutions, universities, and government agencies around the world.

MISTI operates via 25 country and regional programs which manage robust internship programs connecting MIT students to professional experiences abroad. In addition to internships, through the Global Teaching Labs (GTL) program, MIT students taught in Ghana, Spain, Sudan, and the United Kingdom; MIT Global Startup Labs (GSL) ran workshops in Uruguay; and the MISTI Global Seed Funds (GSF) introduced new funds in Colombia, Israel, Jordan, and Mexico.

This year, Covid-19 significantly impacted the operations of MISTI and its international partners, and MIT student and faculty travel remained suspended. MISTI kept operating to provide students with new

opportunities and support for faculty international research as well as developed innovative programming to help MIT respond to changing global circumstances.

MISTI student programs

MISTI offers MIT undergraduate and graduate students opportunities to intern, research, teach, and study abroad. These experiences are provided at no cost to the students. Students prepare for their placements through MIT courses in the host country's language, history, and politics and a series of non-credit training modules developed by MISTI staff.

Given travel limitations imposed by Covid-19, MISTI staff brainstormed with their international partners to reshape programming options, translating internship opportunities into a virtual format whenever possible. Also, while students generally travel to countries previously unfamiliar to them, in response to the pandemic, program managers used their networks to help set up internships for international students to work close to home. On top of restructuring the internship program, MISTI staff came up with online activities to help students and the MIT community learn and engage all year long.

In 2020-2021, MISTI provided 475 international opportunities. About one-quarter of these placements were internships or research in companies, research institutions, or university laboratories. In a typical year, MISTI facilitates over 1,200 student placements.

MISTI student placements 2020-2021:

- 371 (70 in person, 286 remote, 15 country nationals) internships (companies, research institutions, NGOs, government, universities)
- 15 Global Teaching Labs (GTL) and other short-term teaching
- 13 long-term teaching (GSL)
- 1 externship
- 6 short-term research
- 2 training facilitated or supported
- 57 workshops
- 10 study abroad

MISTI also serves as a resource to other programs across campus involved in sending students abroad. In addition to student placements administered by MISTI, 41 students had an international learning experience through the Priscilla King Gray Public Service Center, and 30 students learned abroad through D-Lab.

MISTI Global Seed Funds (GSF)

MISTI GSF enables MIT faculty and research scientists to launch early-stage international projects and collaboration with colleagues abroad. Through an annual call for proposals, MISTI GSF awards funds that can be used for international travel and meetings with international colleagues. Grantees are expected to involve MIT undergraduate and graduate students in their projects.

In 2020-2021, MISTI offered four new funds in Colombia, Israel, Jordan, and Mexico. 155 applications were received, and over \$1.9 million was awarded to 90 projects from 30 departments across the entire Institute. This brings the amount awarded to \$21 million over the 13-year life of the program. To support faculty as they reconfigured their project plans during Covid, MISTI helped repurpose a portion of the

GSF funds for student salaries to help with research progress. The annual call for proposals, which had would have taken place in May 2020, was postponed to September due to the pandemic.

Training and on-campus events

MISTI's country programs offer dozens of pre-departure and public events on international topics in politics, culture, science, technology, history, industry, and the humanities for the MIT community. With in-person travel opportunities suspended, student training sessions for the 2020-2021 academic year were more limited than usual.

Instead, MISTI programs expanded their education and training focus to the entire MIT community. They worked with partners to provide international context and support, keeping MIT connected to the global community during the pandemic. Partnerships with student groups and campus partners brought opportunities for cultural exchange, language learning, and special projects. Numerous hackathons brought together hundreds of student participants from over the world to solve critical problems. A series of webinars examined the global implications of the pandemic and how we can move forward collaboratively.

Professor Lawson completed a successful ten-year tenure as director of MISTI in this academic year.

Security Studies Program

The Security Studies Program (SSP) is a graduate-level research and education program. Its senior research and teaching staff include social scientists and policy analysts. A special feature of the program is the integration of technical and political analyses of national and international security problems. Security Studies is a recognized field of study in the Department of Political Science, and its courses emphasize grand strategy, causes and prevention of conflict, military operations and technology, and defense policy. Arthur and Ruth Sloan Professor of Political Science Taylor Fravel is director of the program.

SSP publishes an annual report (<http://ssp.mit.edu/about/annual-report>), and a quarterly digital newsletter (<https://ssp.mit.edu/about/early-warning>). In addition, members of the program have regularly made themselves available for a variety of media appearances, in print and online (<https://ssp.mit.edu/publications>).

Ruina Nuclear Age Speaker Series

The SSP Ruina Nuclear Age Speaker Series (named in honor of former director Professor Jack Ruina) was held virtually on December 3, 2020. This year's speaker was William J. Perry, former U.S. Secretary of Defense from 1994-1997. Secretary Perry discussed how defense secretary could support the abolition of nuclear weapons and offered his insights on modern-day challenges for mitigating or eliminating the potential for a nuclear catastrophe.

General Doolittle Award Dinner

The General James Doolittle Award reception was held virtually on April 22, 2021. This year's featured speaker and Doolittle award recipient was General C.Q. Brown Jr., Chief of Staff of the United States Air

Force. General Brown spoke on the need for the Air Force to accelerate change to meet the demands brought about by changes in technology and global events.

In April 2017 SSP received a generous gift from the Pierre and Amy Chao Fund to support and sustain SSPs annual Doolittle Award dinner.

SSP Special Seminars

- "Accelerating Innovation University, U S Military, and Private Sector Partnerships," a virtual event held May 6th, 2021, and co-hosted by the MIT Innovation Initiative, the Security Studies Program, and MIT ROTC. The event featured several VIP panelists including the former CEO of Google Eric Schmidt, as well as an introduction by MIT's President, Rafael Reif.
- "Starr Forum: Israelis and Palestinians: Yesterday, Today and Tomorrow," a virtual event held May 21, 2021, co-hosted by CIS, speakers included Peter Krause, SSP alumnus and Associate Professor of Political Science, Boston College and Stephen Van Evera, Ford International Professor of Political Science. John Tirman, CIS Executive Director, moderated the event.

"Focus on Russia" Seminar Series

- "Starr Forum: Russia's Information War on America," September 24th, 2020.
Speakers: Nina Jankowicz, Journalist and Global Fellow at the Woodrow Wilson Center;
Peter Pomerantsev, Journalist and Visiting Senior Fellow at the London School of Economics' Institute of Global Affairs;
Dr. Carol Saivetz (moderator), Senior Advisor in the Security Studies Program
Elizabeth Wood (moderator), Professor of History at MIT and director of the MIT Russia Program.
- "Starr Forum: Palaces & Sandcastles: Deconstructing Putin's Power," March 1, 2021.
Speakers: Sam Greene, Professor of Russian Politics and director of the Russia Institute at King's College, London
Dr. Saivetz (moderator) and Professor Wood (moderator).
- "Starr Forum: Advice for President Biden — Dealing with Putin's Russia," April 12, 2021.
Speakers: Andrey Kortunov, Director General of the Russian International Affairs Council;
Angela Stent, Director of the Center for Eurasian, Russian and East European Studies and Professor of Government and Foreign Service, Georgetown University;
Moderated by Dr. Saivetz and Professor Wood.

Wednesday Seminar Series

Sustaining a long tradition, SSP continued the Wednesday Seminar Series, twenty in total, which offers talks on topics relevant to national defense and international relations, including cyber security, China, Iraq, national security decision making, military technology, military history, and nuclear security. Speakers included academics, military officers, and think tank analysts. The speaker series is open to the entire MIT community and general public. (<http://ssp.mit.edu/events/wednesday-seminars>)

Research and Education

Program research is built around the interests of the faculty, the dissertations of the graduate students, and occasional commissioned projects. Key research areas are:

Nuclear Strategy and Statecraft

- Examining the underlying logic of current nonproliferation strategies
- North Korea and Iran
- Resource allocation and counter-proliferation policy

- The nuclear strategies of middle powers
- The history of nuclear issues, especially proliferation
- China's nuclear strategy

Change and Stability in Asia

- Preventing conflict in Asia's territorial and maritime disputes
- China's military and grand strategy
- U.S.-China relations
- Japan's foreign and security policies
- Competition between India-Pakistan and India-China

U.S. Foreign and Defense Policy

- Reassessing U.S. grand strategy
- The nature and limits of U.S. military power
- The future of conventional warfare

Internal Conflict

- Identity politics
- Political violence
- Civil war
- Counterinsurgency
- Post-conflict reconstruction

SSP has a visiting fellows program in addition to the military fellows that rotate annually from all four U.S. armed services. The Stanton Foundation has awarded funds to support several scholars on nuclear issues, and a chair in political science. The program just completed its ninth year of the fellowship, which included two post-doctoral fellows and one pre-doctoral fellow.

The Charles Koch Foundation is funding a two-year joint SSP-Harvard Kennedy School fellowship. It is intended to support research addressing fundamental issues of U.S. grand strategy, foreign policy, and America's role in the world. SSP hosted two post-doctoral fellows.

The program receives major support from the Carnegie Corporation of New York, which awarded SSP a 24-month grant to support our research on the global "Diffusion of Power." It also received funding from the Stanton Foundation, and the Frankel (MIT) Global Policy Fund, among other foundations and donors, and in April 2021 received a one-year award from Lincoln Laboratory.

Global Dynamics Simulation Lab

Professor Samuels and Principal Research Scientist Eric Heginbotham manage the Global Dynamics Simulation Lab (GDSDL) that supports a coherent research and teaching program aimed at assessing and anticipating international crises.

The work includes research and development of simulation methodologies. The Lab aims to develop and refine a range of simulation approaches to international relations, including: (1) "Two-level Games," the concurrent pursuit by leaders of separate domestic and international objectives in addressing negotiating with peer states on critical matters such as arms control and trade; (2) "Experimental" games that can be

repeated, holding some variables constant while exploring the impact of changes in others; and (3) Tabletop games that can quickly simulate the impact of policymaking as decisions are made. The work also involves research and development of simulation tools of global dynamics. These might include, for example, original or derivative computer models of military conflict, the spread of contagious diseases, or the factors that drive energy prices. The models can then be run to resolve simulation “moves” as they occur.

Finally, the GDSL is being configured to be the primary repository for international crisis simulation reports, not just from MIT but also from other academic and (where documents are unclassified or declassified) government sources. In the case of games with overlapping themes or structures, it may be possible to draw inferences from games lacking strict uniformity. Housing the repository will make MIT the go-to institution for simulation work and provide an important asset for research on best practice.

Seminar XXI

For more than three decades, CIS has hosted Seminar XXI, an educational program for senior military officers, government officials, and executives in non-governmental organizations in the national security policy community. The program provides future leaders of that community with the analytic skills needed to understand other countries and foreign relations in general. A cohort of about 85 fellows meet throughout the academic year in Washington, D.C., and northern Virginia.

Fellows learn to recognize the assumptions that underlie assessments of foreign societies and to explore policy issues critical to American interests through a variety of lenses. At each session, eminent speakers present alternative perspectives from which to understand a given country or problem. The fundamental criterion for choosing fellows is that they currently hold or are expected to hold top posts in the military or government within the next three to five years.

The program just completed its 35th year and now has more than 2,600 alumni. Kelly M. Greenhill, Associate Professor of Political Science at Tufts University, was named to succeed Robert Art, Christian Herter Professor of Political Science at Brandeis University and longtime director of Seminar XXI. For this academic year, Kenneth Oye, Professor of Political Science and Professor of Data, Systems, and Society, was acting director.

Program on Emerging Technologies

CIS created the Program on Emerging Technologies (PoET) with support from a National Science Foundation IGERT grant. The program was founded as a joint venture with Political Science, Science, Technology, and Society, and Engineering Systems. Professor Kenneth Oye serves as director. Current activities focus on assessing and managing the benefits and risks of biological, medical, and information technologies. PoET research, education, and policy work is collaborative, with teams of technologists, scientists, social scientists, and policymakers working jointly on responsible innovation. In 2020-2021, PoET expanded its activities in research, educational and public service.

Research

- Developed and evaluated safeguards to limit potential security, safety and environmental effects of biological engineering applications with emphasis on two sets of applications: (a) Gene drive control of

vector borne disease, with Professor Oye serving on the NIH NExTRAC working group on gene drives; and (b) Genetically engineered biological chassis for materials production with support from Netherlands NWO and RIVM (with Wageningen University and Yale University).

- Worked on a study on information hazards associated with potentially dangerous tools and applications of biotechnology with attention to potential adverse side effects. Controls on information flows to malevolent actors also limit access to information by scientists seeking to advance knowledge, by biosafety officers and benign technologists seeking to avoid inadvertently creating hazards, and by policy communities seeking knowledge to inform deliberation. This project focuses on improving tradeoffs across these desirable ends.
- Conducted research on planned adaptive management of risks associated with emerging technologies, pharmaceuticals, finance, and security affairs.
- PoET doctoral students conducted research on biological and internet security in partnership with CSAIL, with attention to the effects of regulations on terms of trade.

Education

- Sponsored, designed, and staffed the core MIT course on Science, Technology and Public Policy, serving undergraduate and graduate students from across the Institute and from Woods Hole Oceanographic Institute. PoET affiliate Lawrence McCray guided graduate student research on adaptive risk governance and established a working paper series as an outlet for student papers.
- * Reconfigured the curriculum of the MIT Seminar XXI Program to include sessions on the security implications of pandemics, information technology and biological technology, and climate change. In December of 2020, PoET organized a special panel on COVID-19 with an immunologist and geneticist from the Johns Hopkins Center for Health Security and a former FDA official with the Gates Foundation.

Public Service

- Served as the hub for the Synthetic Biology Policy Group, a network meeting weekly to discuss topics in biomedical and biological engineering. The network links MIT CIS and Lincoln Laboratory to the National Academy of Sciences, the Engineering Biology Research Consortium, the American Biological Safety Association International and to universities including Johns Hopkins, Harvard and Emory Medical Schools, and Stanford Biological Engineering. From January of 2020 through August 2021, the group has focused on COVID related technical topics and policy issues.
- Provided leadership for the Safety Committee of the DARPA supported Broad Institute BioFoundry. The Foundry functions as a genetic design institute that enables the forward engineering of sophisticated massively multi-part genetic systems.
- PoET Director Kenneth Oye serves as a member of the National Institutes of Health Novel and Exceptional Technology and Research Advisory Committee (NExTRAC).

Human Rights & Technology

For the third year, this program sponsored research opportunities for MIT students to connect matters of human rights and how they are affected by technology, for good or ill. Eight fellowships were awarded, three to undergraduates and five to graduate students (including a two-person team). The topics ranged widely, and included the use of cryptocurrency in sex trafficking, how local actors circumvent internet

ensorship in Iran with technical and social innovations, and an investigation into the use of ShotSpotter, a surveillance technology that may violate privacy rights and worsen racist policing.

A workshop on the state-of-the-field in human rights and technology was scheduled for autumn but had to be postponed because of the coronavirus emergency.

The program is administered by Dr. Tirman and Anat Biletzsky, Albert Schweitzer Professor of Philosophy at Quinnepiac University and a Research Affiliate of the Center.

Persian Gulf Initiative

This program, in its 15th year, finished one of its major objectives, the book on U.S.-Iran relations that was the subject of five critical oral history conferences. Successfully submitted to Johns Hopkins University Press, the book is titled, *Republics of Myth: National Narratives and the US-Iran Conflict*, and is coauthored by Dr. Tirman, Professor Hussein Banai of Indiana University, and Malcolm Byrne, Deputy Director of the National Security Archive at George Washington University. A web site covering much of the same material advanced during the year as well. It is the third book produced through the work sponsored by the Initiative.

A new project drawn from the Initiative's work on Iraq War mortality (such as "The Human Cost of the War in Iraq: A Mortality Study," October 2011) is the Human Security Dashboard, which is Web-based and provides data and analysis on several armed conflicts, including those in the Gulf area. Development on this began during this academic year. The Initiative also produced an earlier Web site on Iraq War mortality, <http://mit.edu/humancostiraq/>.

Dr. Tirman made several media appearances to comment on U.S.-Iran relations and conditions in Iraq. Among them was a 30-year retrospective on the U.S. involvement in Iraq, published in the DAWN Journal. He was named a DAWN Fellow at the NGO—Democracy for Arab World Now—founded by slain journalist Jamal Khashoggi.

Public Programs

In 2020-2021, CIS offered a diverse and enriching public education program. The Center's Starr Forums and public lectures continued to offer events on pressing global issues with leading academics, policymakers, and journalists. The program launched a new event series in late spring entitled MIT X True Africa University (MIT-TAU) that explored sustainability issues in Africa through the lens of that continent's experts.

To that end, the program produced fourteen Starr Forums and eleven MIT X TAU webinars. The events were held virtually as Zoom webinars and had record numbers of registrants. For example, there were as many as 765 registrations for a Starr Forum and 730 registrations for an MIT X TAU webinar. The average attendance for a Starr Forum was 191 real-time views per virtual event on Zoom. This is an increase from an average of 160 people in attendance at our pre-pandemic in-person events. THE MIT X TAU webinars averaged 160 real-time views per event on Zoom.

The archived videos of both Starr Forums and TAU are made available on-demand on our YouTube channel. On this platform, the Starr Forum videos averaged nearly 500 additional views per event and MIT X TAU videos averaged more than 200 additional views per event.

Highlights from Starr Forums include:

- "The Haitian Constitutional Crisis and the International Community," with Robert Fatton, University of Virginia; Georges Fauriol, Center for Strategic and International Studies; Sabine Manigat, Independent Researcher (Haiti); Amy Wilentz, University of California at Irvine; and moderated by Malick Ghachem, Associate Professor of History, MIT.
- "Myanmar and South Asia: Democratization, Authoritarianism, and Refugees," with Ambassador Gautam Mukhopadhyaya, Centre for Policy Research; Jonathan Saha, Durham University, UK; Yasmin Ullah, Rohingya Social Justice Activist; Harn Yawngwe, Euro-Burma Office; and moderated by Sana Aiyar, Associate Professor of History, MIT.
- "Israelis and Palestinians: Yesterday, Today and Tomorrow," with Peter Krause, Associate Professor of Political Science, Boston College; Stephen Van Evera, Ford International Professor of Political Science, MIT; and moderated by Dr. Tirman.
- "On Causes of and Responses to Anti-Asian Violence" with Melissa Nobles, Kenan Sahin Dean of the School of Humanities, Arts, and Social Sciences, and Professor of Political Science, MIT; Paul Watanabe, University of Massachusetts, Boston; Katharine Moon, Wellesley College; Tram T Nguyen, Massachusetts State Representative and House Asian Caucus; and moderated by Professor Oye and Christine Pilcavage, Managing Director, Japan Program, MIT.
- "President Biden's Foreign Policy Challenges: Views From Abroad," featuring the following experts who had previously served as Robert E Wilhelm Fellows at CIS: Naomi Chazan, Hebrew University of Jerusalem; Paul Heer, Center for the National Interest; Shivshankar Menon, former foreign secretary of India; Lourdes Melgar, Baker Institute Center for Energy and former Mexican energy minister; and moderated by Professor Samuels.
- "Democracies on the Rocks?" with Susan Hennessey, Lawfare; Neeti Nair, University of Virginia; Steven Levitsky, Harvard; Daniel Ziblatt, Harvard; and moderated by Professor Samuels, MIT.
- "Russia's Information War on America," with Nina Jankowicz, Wilson Center; Peter Pomerantsev, London School of Economics, and co-chaired by Professor Wood and Dr. Saivetz.
- "Beyond 9/11: Homeland Security for the 21st Century," with Alan Bersin, Harvard Kennedy School; Stevan E Bunnell, former General Counsel of the US Department of Homeland Security; Professor Lawson; Admiral Peter Neffenger (USCG Ret.), Northeastern University; Amy Pope, Atlantic Council; Seth Stodder, Partner at Holland & Knight LLP; and moderated by Juliette Kayyem, Harvard Kennedy School.
- Highlights from the inaugural MIT-TAU series, which is moderated by its creator Claude Grunitzky, a research affiliate of CIS and the founder of True Africa magazine and True Africa University:
 - "Africa's New Technologies" with Iyinoluwa Aboyeji, CEO of Flutterwave.
 - "Africa's Economic Power" with Jeffery Sachs, Columbia University.
 - "Africa's Expertise" with M Amah Edoh, MIT.
 - "Africa's Innovation" with Maya Horgan Famodu, entrepreneur, founder and partner at Ingressive.
 - "Africa's Agricultural Reinvention" with Sara Menker, entrepreneur and the CEO of Gro Intelligence.
 - "Africa's Future Government" with Evan Lieberman, Total Professor of Political Science and Contemporary Africa, MIT.

The CIS biannual newsletter, *précis*, is a 40-plus page magazine and features original articles covering the Center's research community. *Précis*, and a monthly "In the News" email newsletter, both are circulated across the Institute, and to like-minded research centers, NGOs, policymakers, and journalists.

The program manages the external web site; the intranet site, email newsletters for both external and internal communications; and provides ongoing media support through news releases, direct media promotion and outreach, and writing and placing news features.

The CIS web site had an astounding increase in users bringing us up from 39,716 visitors during the 2019-20 academic year to 84,669 visitors during this past academic year.

The CIS YouTube channel had 188,113 views which was also a substantial increase from the prior academic year. Twitter averaged more than 1,000 profile visits per month and Facebook had an average monthly reach of 7,500.

The program produced an animation video that provides a thorough yet brief (~60 seconds) overview of the work being done at CIS. This is used for promotional purposes at each Starr Forum event and posted on our web site and social media channels.

The program also is part of the selection committee for the Center's Elizabeth Neuffer Fellow, which brings an outstanding young female journalist to the Center, with additional weeks at the *New York Times* or the *Boston Globe*. This year, the pandemic prevented the appointment of a new fellow.