Table of contents

Toward 2025 and beyond  2
Leverage our place  4
Transform society  8
Value entrepreneurship  12
Conduct use-inspired research  16
Enable student success  20
Fuse intellectual disciplines  24
Be socially embedded  28
Engage globally  32
Support  36
Alumni relations  38
Recognition  40
Like any new enterprise, creating and growing the School for the Future of Innovation in Society has its challenges. But there is quite literally no better place – no hallowed, ivy-covered walls, no big Mid-Western land grant – than Arizona State University to do the kind of work you see represented in our second annual report.

One quality of ASU that makes it so congenial for SFIS is the way it articulates and pursues a set of “design aspirations” that distinguish ASU as a New American University. These design aspirations are something like the cultural DNA for ASU: They provide the basic plan that interacts with the environment to give rise to a university that puts students first, emphasizes innovation, and mobilizes knowledge in service of human needs.

In leveraging our place, we take advantage of the vibrancy of Tempe, the state capital in Phoenix, the human diversity of Arizona, and the environmental diversity of the southwest. We also put our presence in Washington, D.C. to good use, bringing new tools and concepts to national policy.

We are transforming society through actions that are as small as a helpful insight, and as large as an educational reform reaching millions; as palpable as a handshake, and as ethereal as a computer game.

Valuing entrepreneurship, we rethink risk and responsibility, encouraging the creative instincts and innovative choices of students and community partners. Success is less about checking the right box and more about taking intellectual risks and designing fresh combinations.

In conducting use-inspired research, SFIS addresses some of the most pressing problems facing humanity, helping deliver 21st-century educational opportunities in places lacking electricity and Internet and working with cities to become more resilient in the face of extreme climate events.

We are enabling student success by supporting innovative, immersive educational experiences in national policy-making and global engagement, by including students in cutting-edge faculty research, and by challenging them to take their curriculum into the world through applied research projects.

SFIS is fusing intellectual disciplines by bringing dozens of diverse scholarly backgrounds together for common purpose, and by putting interdisciplinary art/science collaborations to use in engaging the public to think about the future in new ways.

Being socially embedded means that SFIS takes cues from and provides value back to the communities in which we operate, devising ways to discuss the challenge of resilience with Tempe city officials and the excitement of space travel with museum visitors.

By engaging globally, SFIS exposes students to diverse cultures and values, creating collaborations to address global-scale challenges and reminding everyone that innovation knows no geographical boundaries.

The following pages detail how SFIS operates along ASU’s design aspirations to contribute to the culture and achievements of a New American University. If you agree that this is how a university should work, then join us. Everyone is welcome. Because the future is for everyone.
Winter School

5th Annual Winter School on Responsible Innovation and Social Studies of Emerging Technologies

In the winter of 2017, 14 students, half of whom were international, participated in the 5th Annual Winter School on Responsible Innovation and Social Studies of Emerging Technologies. The Winter School, a seven-night immersive experience held at the Saguaro Lake Ranch in Arizona, gives graduate and postdoctoral students a chance to interact with both peers and experts and share their own research at the culminating research symposium. Participants get practical experience with the methods and theories employed by SFIS through hands-on, collaborative instruction as they investigate the human and social dimensions of emerging technologies such as nanotechnology, robotics, geoengineering, artificial intelligence, and synthetic biology. Winter School, funded by a National Science Foundation sub-award grant from Georgia Tech, is overseen by Associate Professor Jameson Wetmore. Ira Bennett, SFIS Associate Director for Research, and Rider Foley, a CSPO alumnus and Assistant Professor at the University of Virginia, organized and operated this year’s session.

Value of solar

As part of a four-part series on “The Value of Solar,” the Energy Policy Innovation Council (EPIC) of the Institute for the Future of Innovation in Society (IFIS) launched its own podcast in December 2016. In the first installment of the series, EPIC student researcher Mady Tyson spoke with Andy Tobin, Arizona Corporation Commissioner, about his plans for establishing grandfather clauses to protect Arizona homeowners who have already installed solar panels, as well as his goal to ensure that utility companies are sufficiently educating their customers on how to use complicated “demand charges” to their own benefit. Subsequent episodes featured guests such as Brianna Kobar, Program Director of DG Regulatory Policy for Vote Solar, and Sandy Bahr, Grand Canyon Chapter Director for the Sierra Club.

“I strive to create spaces and conversations where people who don’t normally think about themselves as part of scientific and technological discussions can ask questions, understand new innovations and their potential effects on their lives, and learn how they can participate in those decisions.”

— Jennifer Richter, Assistant Professor
As part of a larger ASU presence in the nation’s capital, CSPO in Washington, D.C. aims to spur national engagement and partnerships, focusing on the contribution of science and technology to society. CSPO forms strategic partnerships, participates in science policy initiatives, builds a community of intellectuals and practitioners and fosters policies to help decision makers and institutions grapple with the power of science and technology. Through public discourse, publications and projects, CSPO provides one-of-a-kind learning, teaching and research opportunities for students and faculty members such as SFIS’s signature Science Outside the Lab program.

Public Discourse

The New Tools for Science Policy seminar series explores the future of scientific research as it confronts challenges and discovers new opportunities. In the fall of 2016, CSPO hosted a thematically linked series of three talks called “The Illusion of Average.” Speakers explored how focusing on averages has led researchers, funding organizations and the public to forgo vast amounts of information. As a result, they risk building policies on plausible but misleading information.

Book series

The Rightful Place of Science is a book series that tackles urgent topics across a range of complex techno-scientific subjects. This year, CSPO published two new volumes in the series:

• “Future Conflict and Emerging Technologies”
• “Climate Pragmatism”

Publication

CSPO, in partnership with the National Academies of Sciences, Engineering, and Medicine and the University of Texas at Dallas, publishes Issues in Science & Technology, the only general-interest publication in the country devoted to science and technology policy.

Issues is a magazine in which researchers, government officials, business leaders, and others with a stake in public policy can share ideas and offer specific suggestions. Issues provides scientific and technical authorities an opportunity to share their insights directly with a broad audience.

Co-edited by CSPO Co-director Daniel Sarewitz, Issues covers today’s most important topics, including the transition to a low-carbon energy system, the U.S. manufacturing sector, climate engineering, education, biomedical innovation and other critical policy issues.

New institute launched

Institute for the Future of Innovation in Society

President Michael Crow and CSPO co-directors Dave Guston and Dan Sarewitz, along with more than 100 participants, gathered in Washington, DC, on October 24, 2016 to celebrate the launch of ASU’s Institute for the Future of Innovation in Society (IFIS). It was the first in a series of events created to highlight initiatives the Institute will be pursuing. The President and CEO of New America, visitors from NASA, the US Center for Disease Control, the National Oceanic and Atmospheric Administration, and the National Academies of Sciences, Engineering and Medicine were all in attendance. The event featured Professor of Practice Brian David Johnson’s Future of the American Dream Project, which works to bring communities together to figure out what kinds of futures Americans want to see. During the evening’s reception and dinner, hosted at New America, SFIS faculty members Lauren Wittycombe Keeler and Michael Bennett guided attendees through a tarot game designed by Keeler to elicit visions of a future America and scenarios that might impact the future of the American Dream.

“SFIS is an exciting and important new initiative where people convene to create ideas and tools designed to revolutionize the pursuit of new knowledge and its application for human benefit.”
— Michael M. Crow, president, ASU
Citizen Science Maker Summit

Connecting with communities

The Citizen Science Maker Summit explored the crossroads of citizen science and the maker movement, demonstrating how citizens can independently create their own solutions. The event brought together scientists, makers and citizens who have a passion for science and technology. The Summit, hosted by Professor of Practice Darlene Cavalier, gave regular people with a deep love for science the chance to get involved in research and the maker movement and it provided scientists the opportunity to connect with their community. The three-day summit featured talks from keynote speakers addressing various issues in the community. At breakout sessions, participants collaborated and hashed out ideas for future projects and endeavors. Cavalier said about the event, “It was really designed to be a starting point for people. I have already seen people coming together and working and collaborating on proposals that they can do together, so I’m very excited to see what comes out of this.”

Game-infused learning platform

Games can transform learning by helping students understand their sense of purpose as individuals, members of society, and as citizens of the world. Sasha Barab, Professor with SFIS and Mary Lou Fulton Teachers College and founding director of the Center for Games and Impact, is passionate about such learning platforms. He points out that the value of transformational play, through which students leverage their skills and knowledge, is central to this kind of learning. Through grants from the Gates Foundation, the MacArthur Foundation, the National Science Foundation and others, Barab and his team have been creating virtual learning platforms, games and apps to engage teachers and students. His projects aim to help students thrive and to enable them to understand real-world problems in a virtual world, creating knowledgeable, compassionate and committed citizens.

"I work with scientists and engineers to help them understand that their ambitions of making the world a better place might involve grappling with many different views of what ‘better’ means.”
— Emma Frow, Assistant Professor

Course spotlight
Politics, Markets, and Innovation

Studied the role that governments, markets, and other factors play in promoting, disseminating, and regulating science-based technological innovation. In addition to studying the role of governments, firms and universities, also considers the role of the public as consumers who adopt innovations but also as citizens who may be skeptical of them.
Transform society

Community engagement

Environmental Literacy, Improved Resilience, and Decision Making

Funded by the National Oceanic and Atmospheric Administration’s Office of Education, CSPO and the Museum of Science, Boston have developed a three-year project that seeks to bolster community resilience to a variety of climate hazards by increasing environmental literacy and strengthening community decision making. The project facilitates deliberation among average citizens to address the hazards they face and improve public awareness of these hazards. The project also increases the capacity for museums to act as convening institutions for public engagement; incorporates the coastal, weather and climate science needed to inform decisions; and involves the public directly in decisions about measures that contribute to resilient communities, ecosystems and economies. The process generates materials and methodologies, along with a support network of experienced facilitators that museums and schools can use for future programs.

Culture and communication

Michael Zirulnik, program manager of SFIS’s Think, Write, Publish project, co-authored “Black Female Pilot Narratives: Applying Co-Cultural Theory to Inform Crew Resource Management” with Mark P. Orbe, professor at Western Michigan University and research fellow in the Hugh Downs School of Human Communication. The paper, which won the Top Paper Panel Award from the National Communication Association, examined the ways in which black female airline pilots manage their elite job status as members of non-dominant cultural groups.

Student spotlight

Michele Piercey
MS, Global Technology and Development

Michele Piercey has been an international development practitioner for more than 15 years and has spent much of that time implementing conflict mitigation and peacebuilding projects. As a graduate student as well as a senior executive at Chemonics, she relishes the mix of theoretical and applied thinking, writing about the real-world implications of development and technological change. She believes that this program challenges her to question assumptions and think deeply about the problems tackled in international development. She finds the program to have a unique perspective, allowing her to focus directly on the critical link between development and technological change and how human beings innovate to overcome problems and improve their lives.

Future of X

Focus on Personalized Medicine

The Future of X is an event series designed to promote conversations about the ethics behind new science and technology and the future we want to create. This series covers a range of issues including artificial intelligence, personalized medicine, responses to the Zika virus, and the changing nature of libraries.

“For a lot of things we have the technology, but it’s operationalizing that technology where we fall short still. The technology is there, but how we use the technology needs to come a long way.” — Heather Ross, Clinical Assistant Professor
Value entrepreneurship

Responsible innovation

The Virtual Institute for Responsible Innovation (VIRI) is an international network of 28 academic and institutional partners created to accelerate the formation of a community of scholars and practitioners. Despite divides in geography and political culture, VIRI partners aim to create a common concept of responsible innovation for research, training, and outreach, contributing to the governance of emerging technologies.

Funded by the National Science Foundation, VIRI held its International Visitorship Talk Series throughout the academic year at ASU. Early career researchers from VIRI partner sites worldwide visited the campus to present their research and to receive input from faculty and students. Lectures were on various topics in responsible innovation including synthetic biology, energy futures and block chain technology.

ASU hosted VIRI’s third annual meeting in Tempe, where partners from 18 institutions representing various countries met to discuss prospects for future international collaboration and how to build on the work of VIRI going forward. VIRI partner scholars, led by SFIS Director Dave Guston and Associate Professor Erik Fisher, shared their research and expertise on a variety of responsible innovation topics with the Responsible Research and Innovation Video Series, recorded during the gathering and made available through the organization’s website.

Course spotlight

Risk and the Future

Develops an understanding of how innovation is changing the risk landscape and considers how innovation in approaches to risk can help navigate this emerging landscape, which is resulting from rapidly increasing global connectivity, tight coupling and massive complexity.

Student spotlight

Esther Moon

MA, Applied Ethics and the Professions

Esther Moon has a passion for examining technology integration within schools and assessing the benefits and risks that come with incorporating devices into the learning environment. However, her journey came to a screeching halt when she was diagnosed with breast cancer. Today, she is cancer-free. “After battling cancer, I realized that life is too short to drag this on. When you have cancer, you have to face the possibility that you might die. I knew I wanted to earn my master’s, and I love learning, so I knew I just had to go for it,” she says. She now works with the Gilbert Public School District’s Technology Department, helping kids and teachers learn how to incorporate technology and devices into the classroom.

Threatcasting

Collaborating with the Army Cyber Institute

The Threatcasting Lab, a collaboration between SFIS and ASU’s Global Security Initiative, was established to host and manage the Cyber Threatcasting Project. The Lab aims to craft a vision for the future of digital and physical security, along with recommendations on how the U.S. Army and the Army Cyber Institute can take actions to disrupt, mitigate and recover from these threats. Threatcasting is a conceptual framework and process that enables multidisciplinary groups to envision and plan in a systematic fashion against threats.

Several Labs will be established on both coasts — in West Point, NY, Washington, D.C., Tempe, AZ, and San Francisco, CA. The Labs will produce threatcasting reports exploring specific aspects of cyber threats and cybersecurity to be shared with government, military, academic, public, private and corporate audiences. The Threatcasting Lab is directed by SFIS Professor of Practice Brian David Johnson.

“I am interested in how people navigate big disruptions, particularly in ways that unleash creativity and result in even better futures.”

— Elisabeth Graffy, Professor of Practice

Research

Awards

$5.3M

Expenditures

$2.4M
Value entrepreneurship

Looking at risk

The Risk Innovation Accelerator is a self-assessment tool that will enable entrepreneurs to identify and address risks that could be critical to the success of their ventures, but which they may otherwise overlook. Professor Andrew Maynard and his Risk Innovation Lab team are passionate about developing and implementing such practical projects. The idea behind the Accelerator, funded through ASU, is to generate a suite of risk innovation tools and resources to enhance the skills, abilities and success rates of participants in ASU’s Innovation and Leadership programs. The Risk Innovation Lab is an interdisciplinary “think lab” that emphasizes creativity, collaboration, education, engagement and scholarship to transform how people see, think and act on risk in society. Maynard believes that risk “affects pretty much everything we do, and yet most of the time we treat it like … something that’s there but we’d rather not talk about.” Reframing risks as values, Maynard thinks, can help us tackle challenges that threaten those values.

“I try to understand how people and organizations can prepare for the future even if they can’t predict exactly what that future will look like.”
— Lauren Withycombe Keeler, Assistant Research Professor

The Journal of Responsible Innovation provides a forum for discussion on the broader human and social dimensions of innovation. It is edited by Associate Professor Erik Fisher.

Workshop participants mapping synthetic biology workflows.

Reframing perspectives

Professor Andrew Maynard, Director of the Risk Innovation Lab, was featured in the inaugural season of ASU’s KEDtalks. Sponsored by Knowledge Enterprise Development, KEDtalks are a forum that publicizes innovative ASU research in order to spark ideas, indulge curiosity and inspire action.

Synthetic biology

Future of automation and work

Synthetic biology is an evolving field of research that uses engineering approaches to redesign living organisms. Assistant Professor Emma Frow is working on the “Engineering Life” project with UK-based colleagues. Funded by the European Research Council, the project investigates the movement of ideas and practices from engineering into the life sciences and, in particular, researches the rise of automation in facilities and what that means for the future of work in synthetic biology. Frow has hosted workshops with policymakers, synthetic biology laboratories and companies, and social scientists to map and troubleshoot different synthetic biology “workflows” currently under development.

Student spotlight

Ana Lopez

Master of Science and Technology Policy

Ana Lopez began working at the Arizona House of Representatives shortly after receiving her bachelor’s degree from ASU. She has long been interested in the water-energy nexus as her parents own a water utility. Realizing the significance of the two in policymaking, along with inspiration from a friend who is an alum, Lopez enrolled in the MSTP program. She pursued her applied project on the closure of the Navajo Generating Station, a major element in the water-energy nexus in Arizona. “Here in the desert, any policy decision on water has major impact and we have to be very careful with this vital resource,” she says. Lopez has received an Outstanding Achievement and Contribution Award from ASU’s Commission on the Status of Women. She represents SFIS in ASU’s Graduate and Professional Student Association.
Conduct use-inspired research

SolarSPELL
A new system developed by Assistant Professor Laura Hosman allows educators and students who live in remote areas without an internet connection to access learning materials. SolarSPELL (Solar-Powered Educational Learning Library) is an international project carried out in collaboration with the Peace Corps. ASU students learn about and assemble SolarSPELL devices, then travel abroad and implement them in classrooms and communities, enabling them to gain rich field experience. SolarSPELL consists of a weatherproof solar panel glued to a protective plastic case. The solar panel charges the battery for a microcomputer, which is a server as well as a Wi-Fi hotspot. Anyone with a Wi-Fi-enabled device can connect to the SolarSPELL’s network to access the educational content. The SolarSPELL offline website hosts content including a medical encyclopedia, teaching resources, information about climate change and more.

Course spotlight
Designing Knowledge
Provides a foundational understanding of how social organizations make and use knowledge to contribute to modern societies. Examines how many organizations are specifically designed to be knowledge enterprises, whose primary purpose is to produce knowledge. All organizations in modern societies also operate knowledge systems; systems whose purpose is to create, validate, circulate, communicate and apply knowledge in the making of decisions.

Biomedical intellectual property
Professor Robert Cook-Deegan explores the role of intellectual property as part of his research in “Sequenom v. Ariosa: The Death of a Genetic Testing Patent” in the New England Journal of Medicine. Cook-Deegan, a medical doctor by training, regularly engages in discussion regarding genomics, intellectual property, history of genomics, and health policy with stakeholders in areas of healthcare in the United States: who has access to it, how much it costs, and who pays for it are all subjects of bitter political and legislative battles.

Student spotlight
Farah Najar Arevalo
MS, Global Technology and Development
Farah Najar Arevalo considers herself a tech enthusiast and is intrigued by the power structures that shape the world. Previously working at a tech NGO and on a smart city project in her home country of Mexico, she felt the need to find a place like SFIS where she could rethink the roles and values around technology and how these build a collective future. She studies how technology can contribute to the design of more humane, equitable and sustainable cities. After completing her program, she wants to become a development practitioner. “SFIS is housed in ASU, the #1 public university in the USA for international students. I did not know anyone in Arizona before coming to grad school, and the effort of ASU’s staff to give a warm welcoming experience when you are from another country is superb!”

“Different societies can have different priorities, challenges, and visions of the future. For a more inclusive future these various contexts must be considered and empowered.”

— Mary Jane Parmentier, Clinical Associate Professor

DNA fingerprint
Conduct use-inspired research

Burning interest

Impact of fire in Northwest forests

How do wildfire management institutions plan for a fire? How do they know where a fire will occur and then choose which fires to prioritize? How can they learn to do better in the future? Eric Kennedy, an SFIS Ph.D. student, investigated these questions, often conducting his research in emergency operations centers as they coordinate responses, as well as visiting field operations and even going out to survey the fire itself. He gathered data to support recommendations about how to improve practice and policies.

The 2017 fire seasons in California and British Columbia demonstrated the incredible impact that fire can have on both urban and rural residents. Thousands of homes were lost in both countries, and in the United States a tragic number of fatalities occurred as well. Kennedy’s work looks at the social, institutional and political dimensions of wildfire, particularly in Northern California.

Student spotlight

Eric Kennedy
PhD, Human and Social Dimensions of Science and Technology

Eric Kennedy is an active scholar who helped bring a version of SFIS’s popular Science Outside the Lab (SOIL) program to Canada. SOIL provides students with opportunities to interact with experts, learn about science policy, and understand the many ways people with varied backgrounds impact policymaking. He also presided over a panel focused on wilderness spaces, values, and trade-offs of different kinds of risk at the nationally known Breakthrough Dialogue 2017: Democracy in the Anthropocene.

Course spotlight

Navigating Futures

Explores foresight methods and their potential as entry-points into public discussions about near- and mid-range techno-scientific developments. Focusing on the history of foresight exercises and the dominant methods used in government agencies and business.

Biochar and climate mitigation

SFIS Associate Professor Netra Chhetri brought together engineers, social scientists, community members and students from ASU and Tribhuvan University to conduct biochar-based field research in Nepal. Biochar, created by burning waste from local invasive plant species in oxygen-deprived chambers, increases crop productivity with reduced or no application of inorganic fertilizers.

The ASU team, with funding from the PLuS Alliance and ASU’s LightWorks, also worked with a local biochar company to train 15 community members from local forest-user groups. For smallholder farmers for whom soil fertility and water availability are key constraints to better crop production, biochar-based strategies have the potential to offer pathways to sustainable livelihoods and food security. As geoengineering attracts interest as a potential option for addressing global warming, the carbon sequestration possibilities of biochar are also a promising route to climate change mitigation.

Urban resilience

Understanding and enhancing the resilience of urban infrastructure requires collaboration with different partners in multiple cities over a long period of time. Assistant Professor Thad Miller, as part of an executive management team for the Urban Resilience to Extremes Sustainability Research Network (UREx SRN), coordinated research and engagement in Portland, Oregon — one of the nine cities in the project.

Miller led research on the governance of infrastructure and how the interaction of social, ecological and technological systems impact cities. He also co-led the evaluation of the network to understand how to effectively structure interdisciplinary research and practitioner engagements. The UREx SRN is a 5-year, $12 million dollar project funded by the National Science Foundation. It works across nine US and Latin American cities and includes more than 60 researchers, 40 graduate students and postdoctoral scholars and 100 practitioner partners.
Enable student success

Biodesign challenge
A team of ASU students from the Herberger Institute for Design and the Arts, supported by SFIS and the Biodesign Institute, competed as finalists in the Biodesign Challenge Summit at the Museum of Modern Art in New York City. The challenge is an international university competition that partners college students with scientists to envision new ways to harness living systems and biotechnology.

Pakistan higher ed collaboration
In spring 2017, the second cohort of US-Pakistan Centers for Advanced Studies in Energy (USPCAS-E) scholars from Pakistan arrived at ASU. Professional development workshops were an important aspect of their experience at ASU, including a policy workshop facilitated by Professor Clark Miller, who leads the Center for Energy and Society. This year’s cohort of 34 scholars from Pakistan’s National University of Sciences and Technology and the University of Engineering and Technology Peshawar included 13 female students, the largest number of female participants in the program so far — a success for the promotion of gender equality for engineers, which is a major goal of the program.

Course spotlight
Ways of Knowing
Students explore the concept of research and its various purposes, highlighting knowledge and how it is created in different disciplinary approaches. Exercises historical and philosophical underpinnings of how research is conceptualized, presented and implemented, including what constitutes information, knowledge and evidence in the disciplines of engineering, the sciences and in the social sciences.

“My students and I work to create and foster new models of innovation in knowledge and technology that promote the success and wellbeing of individuals, families, and communities facing challenges of poverty, inequality, injustice, disability and vulnerability.”
— Clark Miller, Professor and Associate Director for Faculty

Science Outside the Lab
Science Outside the Lab (SOIL) is an education program developed more than a decade ago to help students understand the role that science plays in society. SOIL emphasizes the relationships between science, policy and outcomes in a place where decisions about these important issues are often made — Washington, D.C. During the two-week workshop, students visit museums, tour the nation’s capital and get behind-the-scenes views of federal agencies. They also interact with the people who fund, regulate, shape, critique, publicize and study science, including congressional staffers, funding agency officers, lobbyists, regulators, journalists, academics, museum curators and others.

This summer, SFIS hosted six sessions of its SOIL program, which attracted 65 students from universities across the country, including Northwestern, Yale, Georgia Tech and UC Santa Barbara.

Student spotlight
Arizona Baskin
BS, Innovation in Society
Arizona Baskin, like many students who find their way to SFIS, started out in engineering. He realized that he wanted more — not just on a technological basis, but also on a human one. In his senior thesis, he explores why some engineering students decide to change their majors, despite being capable students.

Baskin says SFIS is unique because faculty and students are "asking questions that no one else is asking, and focusing on taking a more humanist approach. When I was in electrical engineering, the emphasis was on the technology and not people, and that just wasn’t for me." After graduation, Baskin has his sights set on law school, where he wants to focus more on developing and examining policies that affect people.
Enable student success

Power of social media

“Social media knows few borders,” said Jeremy Quist, a graduate of the Global Technology and Development program in spring 2017. Quist tested out his hypothesis of the borderless nature of social media firsthand while conducting his master’s capstone research about the effects of social media on transnational gay identity in Central and Eastern Europe.

Quist spent three months traveling around the Czech Republic, Slovakia, Austria, Hungary, and Romania. Despite the challenge of locating his subjects (homosexuality is legal in all five countries, but acceptance varies), he was able to interview 57 English-speaking gay men to learn whether they had feelings of attachment to other gay people across borders.

Quist’s results show that for many gay people, a transnational gay identity does exist. One of the more important findings showed that respondents generally felt a stronger attachment to the transnational gay community than they did to their own local or national community. He believes that this trend will increase as social media and other international interactions become more pervasive. Quist concludes, “The implications of what social media has done are massive. Social media makes a real difference in real individuals’ lives.”

Student spotlight

Rebecca Monteleone

PhD, Human and Social Dimensions of Science and Technology

Rebecca Monteleone is a PhD student and, as a Fellow of the Alliance for Person-Centered Accessible Technologies, she is the recipient of a National Science Foundation’s Integrative Graduate Education and Research Traineeship (IGERT) grant. She earned her Master’s in intellectual and developmental disability from the University of Kent, Canterbury, as a Fulbright Postgraduate Scholar. Monteleone’s focus is on disability rights, specifically on adults with intellectual incapacities and how they conceptualize their disabilities. She explores disparate constructions of disability among researchers and activists as well as different perceptions of prenatal genetic testing. She appreciates the fact that SFIS places a strong value on real, consequential action and focuses on actively creating change in the world.

Science and democracy network

Training young professionals in science and technology studies

Faculty, students, alumni and affiliates participated in the meeting of the Science and Democracy Network (SDN) at Harvard University, June 28 to July 1, 2017. SDN is the largest community of researchers and practitioners devoted to understanding and improving the relationship between science and technology and the practice of democratic governance. The meeting celebrated the 15th anniversary of SDN’s founding and attracted 75 participants from 15 countries. Several publications were featured, including SFIS Director Dave Guston’s new edition of Frankenstein and Associate Professor and SFIS faculty affiliate Ben Hurlbut’s new book, Experiments in Democracy.

Participants focused on topics of critical importance, including strategies for improving responsible innovation, the governance of emerging technologies, the social and policy dimensions of large-scale technological transitions and the organization of scientific and technical advice to governments.

Student spotlight

Omar Al Ansari

BS, Innovation in Society

Omar Al Ansari’s love for technology started when his dad took him to the GITEX Technology Exhibition in Dubai for the first time. He is interested in the innovations that enable people to emphasize their humanity, so Al Ansari was excited that the SFIS curriculum focused on thinking about “involving people in innovative futures.” He says, “SFIS rejuvenated my hope and excitement in education by expanding and developing my overall thinking and mindset in this area.”

Seeing a disconnect between technology and its relation to society in the United Arab Emirates and the United States, Al Ansari wants to work on bridging that gap.

Student spotlight

Rebecca Monteleone

PhD, Human and Social Dimensions of Science and Technology

Rebecca Monteleone is a PhD student and, as a Fellow of the Alliance for Person-Centered Accessible Technologies, she is the recipient of a National Science Foundation’s Integrative Graduate Education and Research Traineeship (IGERT) grant. She earned her Master’s in intellectual and developmental disability from the University of Kent, Canterbury, as a Fulbright Postgraduate Scholar. Monteleone’s focus is on disability rights, specifically on adults with intellectual incapacities and how they conceptualize their disabilities. She explores disparate constructions of disability among researchers and activists as well as different perceptions of prenatal genetic testing. She appreciates the fact that SFIS places a strong value on real, consequential action and focuses on actively creating change in the world.
Fuse intellectual disciplines

Integrating public values in decision making

STIR (Socio-Technical Integration Research) is an interactive decision-mapping tool used by social scientists to assess the possibility and usefulness of integrating public values into research practices, enabling them to be responsive to social and ethical concerns. Scientists and engineers have also used STIR to analyze research goals and plan research activities. Studies in more than 30 laboratories suggest that STIR helps generate novel solutions, synergistically enhancing productivity, creativity, and social responsibility.

Associate Professor Erik Fisher developed the STIR method, which was used by Miklós Lukovics, a faculty member at the University of Szeged in Hungary, to carry out two successful pilot projects. In their continuing collaboration, Fisher and Lukovics have been tailoring STIR for an Eastern European setting. Lukovics launched a project, Danube Framework for Responsible Research and Innovation using Socio-Technical Integration (D-STIR), which aims to improve Danube framework conditions for innovation by integrating Responsible Research and Innovation into the innovation pipeline.

The project brought together 15 organizations from nine European countries with support from the European Regional Development Fund (ERDF) and the Instrument for Pre-Accession Assistance (IPA).

Frankenstein 200 Exhibit

The Frankenstein 200 Exhibit used the Frankenstein story as a lens to examine complex relationships among science, technology, ethics, and society. The installation, curated by Bob Beard of the Center for Science and the Imagination and Kathy Krzys, ASU archivist, was on display for more than three months at ASU’s Hayden Library. The exhibit engaged attendees through public events such as school field trips, book club meetings, film festivals, scientific demonstration, writing and art competitions, publications and workshops.

Course spotlight

Climate Change, Energy, and Social Justice

Through interdisciplinary understanding, explores energy use and its contribution to climate change and the social justice impacts of current energy usage in society. The class is both technical and non-technical, and draws on scientific literature, engineering case studies, ethics, justice, and science and technology studies.

― I am interested in engaging everyone with everyone in co-discovering, co-designing and co-developing our socio-scientific futures.‖
— Mahmud Farooque, Clinical Associate Professor

Responsible innovation

Although Mary Shelley’s Frankenstein has turned 200, her cautionary tale continues to exert influence over science and innovation today. The vision of the Frankenstein Bicentennial Project is to engage scientists, engineers, citizens, students and even children in discussions about the ethics of scientific and technological change and the responsibilities that come along with innovation and creation. The project, led by SFIS Director Dave Guston and Assistant Professor and Director of the Center for Science and the Imagination Ed Finn, brings together multiple disciplines across several institutions and bridges academic and artistic communities.

Frankenstein 200 Exhibit

The Frankenstein 200 Exhibit used the Frankenstein story as a lens to examine complex relationships among science, technology, ethics, and society. The installation, curated by Bob Beard of the Center for Science and the Imagination and Kathy Krzys, ASU archivist, was on display for more than three months at ASU’s Hayden Library. The exhibit engaged attendees through public events such as school field trips, book club meetings, film festivals, scientific demonstration, writing and art competitions, publications and workshops.

Emerge

Frankenstein was the theme for SFIS’s annual festival, Emerge. Associate Professor Cynthia Selin and a team of collaborators created a participatory space with transmedia exhibits, immersive experiences, interactive narratives and performances for all ages. The festival highlighted issues in the 200-year old novel related to the unintended consequences of irresponsible science and focused a critical eye on the future implications of innovation. The event was held concurrently with ASU’s Night of the Open Door and hosted about 1,100 visitors.
Fusion of art and science

Science dance is a performance art that communicates research through dance motions. In an award-winning science dance from the International Sea Turtle Society, Associate Professor Lekelia “Kiki” Jenkins combines her passion for sea turtle conservation with dance.

“Particularly in academia,” Jenkins says, “it’s still perceived as a curiosity.” ASU is different though. “I can do science dance here as scholarship,” she said. “It’s accepted and supported.”

Jenkins is exploring how to expand the use of dance in informal STEM education and social change. She is developing her own contributions to science dance, building in part on the work of 2002 MacArthur Genius Award-winning choreographer Liz Lerman, in ASU’s School of Film, Dance and Theatre.

Future Out Loud

Podcast

SFIS faculty members Heather Ross and Andrew Maynard are the voices behind a new podcast called Future Out Loud, in which experts chat about our collective future and how emerging science and technology affect society. The podcasts are raw and unfiltered, providing insight on what advancements and challenges we can look forward to, as well as ways we can influence those changes.

What started out as a project to introduce prospective students to SFIS, quickly became something much bigger. “We’re extending out to a much broader audience. Podcasts really are the best format for that right now,” says Ross. On why the pair chooses to keep Future Out Loud raw and unedited, Ross explains: “When I listen to some of those scripted shows, I never feel like I ever get the inside story,” she said. “It’s the unedited conversations that are most intriguing. There’s no PowerPoint, no script. We ask our guests specifically not to prepare anything.” Maynard says he enjoys doing the podcasts because as a faculty member, he rarely finds time to just sit down and have an intellectual conversation. “This gives us the ability to connect with other professionals in a different way,” Maynard explains. Future Out Loud is available to listen to on Soundcloud, iTunes, and Stitcher.

Student spotlight

Elizabeth Garbee

PhD, Human and Social Dimensions of Science and Technology

Elizabeth Garbee, with an undergraduate degree in physics, was trained to tackle problems by breaking them into their constituent pieces and putting them back together in a way that brings some clarity or focus to the greater whole. As a PhD student at SFIS, she focuses on intractable problems around national science and technology policy. These problems won’t be solved by simply throwing more scientific facts at them or by the idea that “more science equals better policy.” Garbee has found that the program equips her with the skill and experience to be a trusted voice and passionate advocate — not strictly for science, but for the kind of decision making under uncertainty that relies on science while fully recognizing its own fallibility.
Samantha Lloyd filming on location at the border of the United States and Mexico.

“The wall doesn’t even stop people from coming into this country. It does stop wildlife, and it splits habitats in half. We’re only causing harm, we’re not actually getting any benefits from this,” explains SFIS MSTP student Samantha Lloyd in a somber tone as she walks along the US-Mexico border in Arizona in the opening scene of her documentary, “Wild Freedom: The Border and Its Environmental Impact.”

Lloyd had lived in Phoenix for years, but she had never actually seen the area around the border. In order to capture footage for her documentary, she camped out at different spots along the wall and filmed the wildlife that populated the border area. She came to find that the area was nothing like the sensationalized picture painted by the media of a violent, drug-ridden wasteland. Instead, she found a tranquil environment, rich with native animal and plant species.

Border walls along the southern parts of Arizona have disrupted migration patterns and cut off wildlife from the natural resources that they need to survive. At the same time, walls have arguably done little to address highly politicized human immigration and security issues.

With these complex issues in mind, Lloyd crafted her short documentary, “Wild Freedom” to show that future border security measures need to be reconsidered with sensitivity to native habitats. “My hope with this project is that it opens up the line of communication between people,” she says, “so that they can see that this isn’t a solution. It’s just creating more problems for everyone involved.”

Lloyd’s documentary is available to watch on YouTube.

Rethinking science

In “Saving Science,” a landmark article in The New Atlantis that the journal called “one of the most important essays we’ve ever published,” CSPO co-director Dan Sarewitz exploded myths about science and how it’s supposed to work.

The idea that technological breakthroughs — airplanes, smartphones, computers, effective pharmaceuticals, the internet, GPS, etc. — that shape the modern world are the result of “the free play of free intellects” is mostly a myth. By buying into that myth, we’ve created a crisis in science, of which issues like irreproducibility and irrelevance are symptomatic.

Our task now is to steer the scientific enterprise back to solving real-world problems. Greater engagement with tangible issues such as safe drinking water, disease treatments, better nutrition and more equitable economic prosperity are the only way to help science fulfill its tremendous potential for social benefit.

Course spotlight

Science, Technology, and Inequality

Explores the need to understand the application of science and technology in society as instrumental to the creation and maintenance of inequality within and between societies. Examines more pervasive and ineradicable sources of social distribution in these scientific and technological systems, looking at inequality in regards to distribution and access to the benefits of different technologies as well as exposure to risks from science and technology projects.

Student spotlight

Samantha Lloyd

Master of Science and Technology Policy

Samantha Lloyd always had an interest in science and conservation, but her background was in journalism and communications. The MSTP program allowed her to combine those interests, opening up a new door looking at regulations and policies involved in conservation. As a documentarian, the program inspired her to want to tell a more complete story to the public when it comes to science and technology. It also enabled her to “educate the public and our representatives in the most unbiased way, so they can vote and make informed decisions that are for the betterment of our world and not for their own personal gain.”

Video documentary

Wild Freedom: The Border and Its Environmental Impact

"The wall doesn’t even stop people from coming into this country. It does stop wildlife, and it splits habitats in half. We’re only causing harm, we’re not actually getting any benefits from this," explains SFIS MSTP student Samantha Lloyd in a somber tone as she walks along the US-Mexico border in Arizona in the opening scene of her documentary, “Wild Freedom: The Border and Its Environmental Impact.”

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Lloyd’s documentary is available to watch on YouTube.
Be socially embedded

Future shocks and resilience

Can playing games inspire a change in how we think about complex problems in our environment? Assistant Research Professor Lauren Withycombe Keeler probed this question with 50 people at the City of Tempe Resilience Workshop, co-sponsored by Tempe, the National League of Cities and ASU’s School of Sustainability.

The game, called “Future Shocks and City Resilience,” allowed the decision makers to take a creative approach to solving multifaceted problems. Participants divided into teams. Each received a set of cards with categories including assets, such as buildings and personnel; issues, such as lack of walkability and homelessness; priorities, including financial stability and quality of life; and a shock, such as a terrorist attack or a pandemic. Each team had to use the cards to create a scenario that would use resources and solve problems in a collaborative way.

“Games are really helpful at getting people to develop skills quickly,” Withycombe Keeler said. “We learn best when we’re having a good time. It’s based on a theory called material deliberation — the idea that by engaging with material in your hands, you build a greater investment in the learning.”

Informal STEM education

The Space and Earth Informal STEM Education (SEISE) project was created in an effort to promote informal educational research projects in the areas of science, technology, engineering and math. The project, funded by NASA and led by Paul Martin at the Science Museum of Minnesota, awarded 250 hands-on activity toolkits to museums and libraries across the country. These kits included a variety of activities directly related to current NASA research and missions, while making connections to new technologies such as an activity that invites participants to build a paper model of the new James Webb telescope. SFIS Associate Research Professor Rae Ostman and program coordinator Jeannie Colton helped develop the kits. Museums and libraries are using the kits to engage diverse public audiences in learning about earth and space science.

“I’m working to build a future of opportunity for all and broadly shared prosperity. That means … understanding how our investments in education shape our economic and social fabric, and helping all Americans embrace their role as citizens and engage actively in civic life.”

— Luke Tate, Professor of Practice
Engage globally

Governing water

China

With its rapid urbanization and industrialization, as well as its rising consumption, China has moved to implement massive projects to meet domestic water needs. Assistant Professor Brittany Crow-Miller’s research focuses on China’s water infrastructure, which she says is part of a fundamentally unsustainable model of water management governed by a mix of corporations, bureaus, universities and government ministries. She and her colleagues have dubbed this model the “China Water Machine.”

Crow-Miller was selected as a Transregional Research Junior Scholar fellow for the 2017-2018 year by the Social Science Research Council’s InterAsia Program. Her proposal, “The Emerging Geography of Chinese Water Infrastructure: InterAsian and Transregional Connections in the Food-Energy-Water Nexus,” was one of only 14 selected from 37 finalists.

One of the main goals of the proposed project is to get a concrete sense of the complex interconnections that exist among Chinese water infrastructure projects and food, energy, and water issues. Water infrastructure projects are connected not only to water itself, but they also have important relationships with food and energy issues. Moreover, these relationships exist not only within Chinese borders, but also in broader Asian contexts and even across contiguous geographic regions. She hopes her research will encourage decision makers in water management positions and citizens affected by such projects to foresee how water infrastructure involves impacts beyond water — and beyond their immediate physical proximity.

“Innovation in East African universities

Uganda

At Makerere University in Kampala, more than 70 students, faculty and staff from East African universities attended “Computing Research as a Development Driver in East Africa.” The workshop, co-sponsored by SFIS, was one of the final activities from the National Science Foundation-funded project, “Capacity Building in Computer Science as a Driver of Innovation.” At the workshop, directed by SFIS faculty Jameson Wetmore and Gregg Zachary and Concordia University’s Matt Harsh, participants shared their research in computer science, reinforcing the importance of connecting science with society and funding knowledge production — particularly original knowledge developed in East Africa.

“I am interested in creating opportunity for everyone to engage in the governance of natural resources so that its rightful users participate in and benefit from the management of it... and that users are empowered, their rights are secured, responsibilities are shared, benefits are equally distributed, and sustainability of the resource base is guaranteed.”

— Netra Chhetri, Associate Professor

Course spotlight

Innovation in Global Development

Examines international development, the role of technology and innovation, and the current era of globalization, including both political and technological changes, with a focus on the disparity in socioeconomic development for a majority of people in the world.

— Darshan Karwat, Assistant Professor

PLuS Alliance

The PLuS Alliance is a partnership among ASU, King’s College London, and the University of New South Wales Australia to find research-led solutions to global challenges and expand access to world-class learning. Faculty members David Guston, Andrew Maynard and Diana Bowman are SFIS Fellows of the PLuS Alliance.

In September 2017, Assistant Professor Laura Hosman was awarded one of the inaugural PLuS Alliance Prizes recognizing research and education innovation at the Times Higher Education World Academic Summit in London for her SolarSPELL device.
Engage globally

Urban rural transitions

Nepal
Two groups of more than 40 students from ASU and the Engineering Institute and Environmental Science Department from Tribhuvan University in Nepal spent several weeks in the hills and lowlands of this Himalayan country. The students, with backgrounds in various disciplines such as engineering, business, and sustainability, worked on energy projects and learned about urban-rural transitions in the Himalayan region. Led by SFIS faculty members Nalini Chhetri and Netra Chhetri, the students lived and worked with indigenous communities during homestays and learned about the complex governance systems that help to sustain the environment and the wildlife within that geographic area. The students also met with farmers who live off their profitable organic produce, beekeeping, and coffee plantations. While one student group focused on working on what indigenous communities and farmers do to be sustainable, the second group of students set up several locally engineered pyrolysers. These pyrolysers are large kilns used to create biochar out of organic plant matter; the biochar can be used as fuel, fertilizer, and filter or can be sold for profit. The second student group also installed a solar-powered irrigation system that provides local farmers with access to reliable water year-round and gives them the ability to grow out-of-season crops that sell at a higher price.

“All technologies have potential to harm or help humans. All humans depend on technologies in the present and will depend on technologies in the future. So in the future all humans must decide whether technologies help or hurt, before using them on a regular basis. My work, in broadest terms, helps people make decisions of this kind on their own and for themselves.”
— Gregg Zachary, Professor of Practice

Economic empowerment

Ecuador
Clinical Associate Professor Mary Jane Parmentier, Chair of the Global Technology and Development program, and Carlo Altamirano, a doctoral candidate in the Human and Social Dimensions of Science and Technology program, led students on a study abroad program to Ecuador. There they learned about the complexity of sustainable development in a country that enshrines the rights of nature in its constitution but relies on oil extraction for economic development. The program acquainted students with local economic empowerment strategies in an environment where local traditions and culture compete with the challenges brought on by globalization.
Support SFIS

Build the future

Committed to ASU’s model of measuring itself not by whom it excludes, but rather by whom it includes, SFIS pursues the vision that the future is for everyone.

For innovations to be truly transformative we must take into account the full range of social actors involved and conditions in which they are embedded to ensure their benefits are fairly distributed.

Through the work of our faculty and staff, the success of our students and the philanthropic leadership of supporters like you, SFIS will continue to build the academic and social infrastructure required to imagine and realize our common future.

Your gift will help to:
- Ensure student Access & Success
- Elevate the Academic Enterprise
- Fuel Discovery, Creativity & Innovation
- Enrich our Communities

Join SFIS and build the future.

Together, our potential is limitless

SFIS is honored to be a presidential priority of ASU’s first comprehensive fundraising campaign, Campaign ASU 2020. There has never been a more exciting moment to be a Sun Devil and there has never been a greater opportunity for your support to make a difference. When you support SFIS, you ensure that the principles and ideas that launched our revolutionary school continue to guide us as we grow. When you invest in SFIS, you are investing in a new vision for the future, a future that is for everyone.

Sun Devil Giving Day success!

Alumni, students, faculty members and staff came together to support SFIS students on ASU’s third annual Sun Devil Giving Day on March 17, 2017. Current SFIS students participated in an all-day phone bank to speak with alumni and share their current experiences. The day was a huge success, raising more than $6,000 for student support. Funds raised help to establish the school’s first Charter Awards, bestowing scholarships to twelve master’s and undergraduate students who exemplify the values of ASU’s charter in the areas of access, excellence and impact.

Raised for student support

$6000

Students and faculty celebrating success on Sun Devil Giving Day.
Alumni relations

Strengthening our community

SFIS and CSPO graduates launched the Alumni Board early this year and outlined goals to meet the needs of alumni, engage with current students and support the mission of the school.

Conversations with SFIS’s inaugural alumni board co-chairs

The Alumni Board named two inaugural Co-Chairs, Ryan Meyer and Natalie DeGraaf discuss what the Alumni Board means to them and their aspirations to foster active fellowship among SFIS alumni in the future.

On the Alumni Board supporting SFIS and the alumni community, and what it hopes to achieve:

Ryan Meyer:
I know how much an organization relies on its networks and relationships in order to grow and do good work. There are so many ways that SFIS can benefit from the broad community of alumni. I want the board to find ways to make those interactions easy, fun, and beneficial for alumni.

I hope we build a sense of community among alumni. This would mean that alums feel connected to each other by a common thread, even when they are meeting for the first time. It would also mean that the school itself is fostering relationships with alums on an ongoing basis.

Natalie DeGraaf:
I believe the central focus for the alumni board is to provide a space that serves and promotes the mutual interests of SFIS and its alumni. The significance of the board is defined by its ability to accomplish this through the promotion of fellowship and professional development among students, graduates, and SFIS alumni. My hope is that the alumni board leadership will be able to support the SFIS mission by cultivating a mutually beneficial relationship between the school and the alumni community.

SFIS graduates who joined our alumni family in 2016-2017
The MSTP program graduated 4 students
The AEP program graduated 6 students
The GTD program graduated 30 students
The HSD program graduated 5 students

On the impact SFIS had on the co-chairs professionally and personally

Ryan Meyer:
Dan Sarewitz likes to joke to his students that learning to see the world through CSPO eyes will ruin their lives. And while that’s not true (quite the contrary!), the learning process certainly is life-changing. It leaves you with a set of complex arguments about science and society, which will always need to be made and always feel challenging to get across. I left SFIS feeling motivated and empowered to take on that challenge, wherever my professional career might take me.

Natalie DeGraaf:
I think the most important lesson I took away from my time at SFIS was a deeper understanding of the role that public policy plays in every aspect of our lives, contributing to societal outcomes and transformations. Without SFIS I never would have asked myself the questions that I ask now, I would never have challenged my leadership to think about concepts and strategies in new ways, and I would never have developed my program into what it is today. I think that’s a pretty big impact both professionally and personally!

Natalie DeGraaf
Co-chair
MSTP, 2011
Public Health Analyst/Advisor
U.S. Centers for Disease Control and Prevention

Ryan Meyer
Co-chair
PhD Affiliate, 2009
Executive Director
UC Davis Center for Community and Citizen Science

Elizabeth Garbee
Graduate Students Rep.
HSD, 2018

Michael Hammett
GTD, 2015
Chief Service Officer
City of Phoenix

Jordan Hibbs
MSTP, 2015
Management and Program Analyst / Presidential Management Fellow
U.S. Department of Energy

Thad Miller
PhD Affiliate, 2011
Faculty Liaison
Assistant Professor
ASU School for the Future of Innovation in Society

Sarah Muench
GTD, 2015
Associate Consultant
Marts & Lundy, INC

Mark Nell
PhD Affiliate, 2009
Assistant Professor
Western Washington University

Heather Ross
HSD, 2016
Clinical Assistant Professor
ASU School for the Future of Innovation in Society

Walter Valdivia
PhD Affiliate, 2011
Senior Fellow
CSPO-DC

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Walter Valdivia
PhD Affiliate, 2011
Senior Fellow
CSPO-DC
Recognition

Academic appointments

David H. Guston was named Foundation Professor.
Daniel Sarewitz was named Foundation Professor.
Clark Miller was promoted to Professor.
Lekelia “Kiki” Jenkins was promoted to Associate Professor.
Cynthia Selin was promoted to Associate Professor in SFIS and in The Polytechnic School of the Ira A. Fulton Schools of Engineering.
Laura Hosman was appointed Assistant Professor in SFIS and in The Polytechnic School of the Ira A. Fulton Schools of Engineering.
Thad Miller was appointed Assistant Professor in SFIS and in The Polytechnic School of the Ira A. Fulton Schools of Engineering.
Darshan Karwat was appointed Assistant Professor in SFIS and in The Polytechnic School of the Ira A. Fulton Schools of Engineering.

Achievements

Awards

Clark Miller was awarded, with all editors of the STS Handbooks, the 2017 STS Infrastructure Award by the Society for Social Studies of Science.
Lekelia “Kiki” Jenkins received first place in Dance Your Black Female Pilot Narratives: Applying Co-Cultural Theory to Inform Crew Resource Management. He also received the National Institute for Staff and Organizational Development (NISOD) Excellence Award.
Michael Zirulnik won the Top Paper Panel Award from the National Communication Association (NCA) for the paper, Black Female Pilot Narratives: Applying Co-Cultural Theory to Inform Crew Resource Management. He also received the National Institute for Staff and Organizational Development (NISOD) Excellence Award.

Fellows

Heather M. Ross was inducted as a Fellow of the American Association of Nurse Practitioners (FAANP).

Editorial appointments

Robert M. Cook-Deegan was appointed to the Editorial Committee for the Annual Review of Genomics and Human Genetics.
Britt Crow-Miller was appointed Assistant Professor.
Luke Tate was appointed Professor of Practice for SFIS and Assistant Vice President and Executive Director of Opportunity Initiatives in the Office of the President.
Mahmud Farooque was appointed Clinical Associate Professor.
Heather M. Ross was appointed as Clinical Assistant Professor in SFIS and Research Scientist in the Global Security Initiative.
Lauren W. Keeler was appointed Assistant Research Professor.

Lekelia D. Jenkins was appointed as Editor of the GYA Connections.
Thad Miller was appointed to serve as a member for the Editorial Board for Sustainability Science, Springer.

Other appointments

Ira Bennett was appointed to the Selection Committee for AAAS Science & Technology Policy Fellowships.
Diana Bowman was appointed as Co-organizer (with the OECD and the German Federal Ministry of Education and Research) and Steering Group Member for the OECD Workshop on Gene Editing for Advanced Therapies: Governance, Policy and Society in Berlin.
Darlene Cavalier was appointed as a Member of the National Research Council (National Academies of Sciences, Engineering, and Medicine) Committee on Designing Citizen Science to Support Science Learning; also as a Member of EPAs National Advisory Council on Environmental Policy and Technology (NACEPT); and to serve on the Program Committee for the 2016 ASU Public Science and Maker Summit.
Netra Chhetri was appointed to the Steering Committee for the Food System Transformation Initiative at ASU’s Global Institute of Sustainability; as a Committee Member for the ASU President’s Award for Innovation; as a Lead Author of the HIMALCIMOD Comprehensive Assessment of the Hindu Khush Himalaya Region; as a member of the Academic Working Group on International Governance of Climate Engineering by the School of Internal Service, American University, Washington, DC; as member of the Steering Committee of ASU’s Future H20, and Panel Member – National Science Foundation.
Robert M. Cook-Deegan was appointed as Co-chair of the Regulatory and Ethics Working Group task force on patient engagement for the Global Alliance for Genomics and Health.
Mahmud Farooque was appointed as a member of the Selection Committee for AAAS Science & Technology Policy Fellowships.
Elisabeth Graffy was appointed as an Advisory Consortium member for the Bert & Phyllis Lam Prize for Innovation in Political Science; and as a board member for the Section on Women in Public Administration at the American Association of Public Administration; and Co-Director of the ASU Environmental Humanities Initiative.

Cynthia Selin was appointed to serve as a member of the Editorial Board of Futures.

Lekelia “Kiki” Jenkins was appointed as a member of the National Research Council (National Academies of Sciences, Engineering, and Medicine) Committee on Designing Citizen Science to Support Science Learning; and member of Sexual Assault Prevention Arts Initiative Faculty Advisory Council at Arizona State University.
Andrew Maynard was appointed as a member of the World Economic Forum Council on the Future of Technology, Values and Policy; and member of the United Nations Expert Group on Exponential Technological Change.
Clark Miller was appointed as Director of Sustainability for the Quantum Energy and Sustainable Solar Technologies (QESST) Engineering Research Center.
Rae Ostman was appointed President of Visitor Studies Association.
Mary Jane C. Parmentier was elected President of the Active Learning and Teaching Section for the International Studies Association; and appointed as Program Chair for the 2017 ISA Annual Convention.
Heather M. Ross was appointed as Chair of the CV Team Advocacy Committee, for the American College of Cardiology.
Jameson M. Wetmore was appointed as a member of the Art Advisory Committee and as a member for the Research, Collections, and Horticulture Committee for the Desert Botanical Garden, Phoenix; and “Nano Expert” for the National Science Foundation’s Ask A Scientist program.
Research support

$444,000 PI: S. Barab School of Social Work Safe at Home: Game Infused Child Welfare
$96,000 PI: M. Gresalfi, Co-PI: S. Barab National Science Foundation (NSF) Boone’s Meadow: Feedback As An Element of Design
$9,000 PI: M. Bennett IHR Seed Grant
$50,000 PI: D. Cavalier, Co-PI: M. Lande National Science Foundation (NSF) I-Corps L: Leveraging Citizen Science
$3,850 PI: E. Frow Lincoln Center for Applied Ethics and the Institute for Social Science Research at ASU Negotiating evidence and expertise in stem cell treatments
$40,000 Director and PI: E. Graffy LightWorks seed funding Spirituality and Sustainability Initiative
$249,000 PI: E. Finn, R. Wylie, A. Brand, Co-PI: D. Guston Alfred P. Sloan Foundation Living Frankenstein
$125,000 Pls: A. Wink, F. Beaudouin, Co-PI: L. Withycombe Keefer Global Consortium for Sustainability Outcomes CapaCities: Building Sustainability Implementation Capacity in City Staff and Leadership
$250,000 PI: A. Maynard Arizona State University Risk Innovation Accelerator
$370,149 PI: A. Maynard Michigan State University Center for Ingredient Safety and Risk Assessment-Risk Communications Subcontract
$12,000,000 (Sub-award $820,000) PI: T. Miller National Science Foundation Executive Management Team, Senior Personnel, Urban Resilience to Extreme Events Sustainability Research Network (UREx SRN)
$2,600,000 PI: L. Bell, Co-PIs: M. Krechhoff, L. Kollmann, R. Ostman, D. Sitterfeld National Science Foundation ChemAttitudes: Using Design-Based Research to Develop and Disseminate Strategies and Materials to Support Chemistry Interest, Relevance, and Self-Efficacy
$258,105 R. Ostman, I. Bennett, J. Wetmore NASA Space and Earth Informal STEM Education (SEISE)
$7,200 PI: H. Ross, Co-I: Parker Institute for Social Science Research Seed Grant Sociometers in Outpatient Clinical Settings: Pilot Study
$187,500 PI: J. M. Wetmore National Science Foundation (NSF) NCSI Coordinating Office at Georgia Tech sub award on SEI

Publications

Books

Peer-reviewed articles


Reports

Book chapters

Important digital communications

Recognition


Future of X Series

Future of Zika — Andrew Maynard, 11/9/2016


Future of Libraries in the Digital Age — Lorrie McAllister, Laura Hosman, 4/11/2017

Future of Consciousness — Gregg Pascal Zachary. Gaymon Bennett, 2/12/2016


In Washington D.C.


CRISPR Business – Robert Cook-Deegan, 3/27/2017


Interdisciplinary Perspectives on Complex Risk Analysis Relevant to Emerging Technologies – Andrew Maynard, 6/27/2017

Risk Communication & Talking to the Public About Chemicals — Andrew Maynard, 2/24/2017

Creativity, Science and the Brain – Lee Gutkind, 9/15/2016


The Illusion of Average: Renewing Research Infrastructure – Erik Hekler, William Riley, Paul Tarini, 10/21/2016

Future Shocks and Community Resilience – Lauren Withycombe Keeler, 2/17 – 2/18/2017

Selected presentations

EnLIGHTeNING Lunch Series


Imagination in Action – Ed Finn, 11/16/2016

Democratization of Technological Governance: This is Not Your Mother’s PTA – Mahmud Farooque, 10/26/2016

Take a Chance on Risk – Andrew Maynard, 9/28/2016

Human Centric Energy Transitions – Clark Miller, 4/28/2017