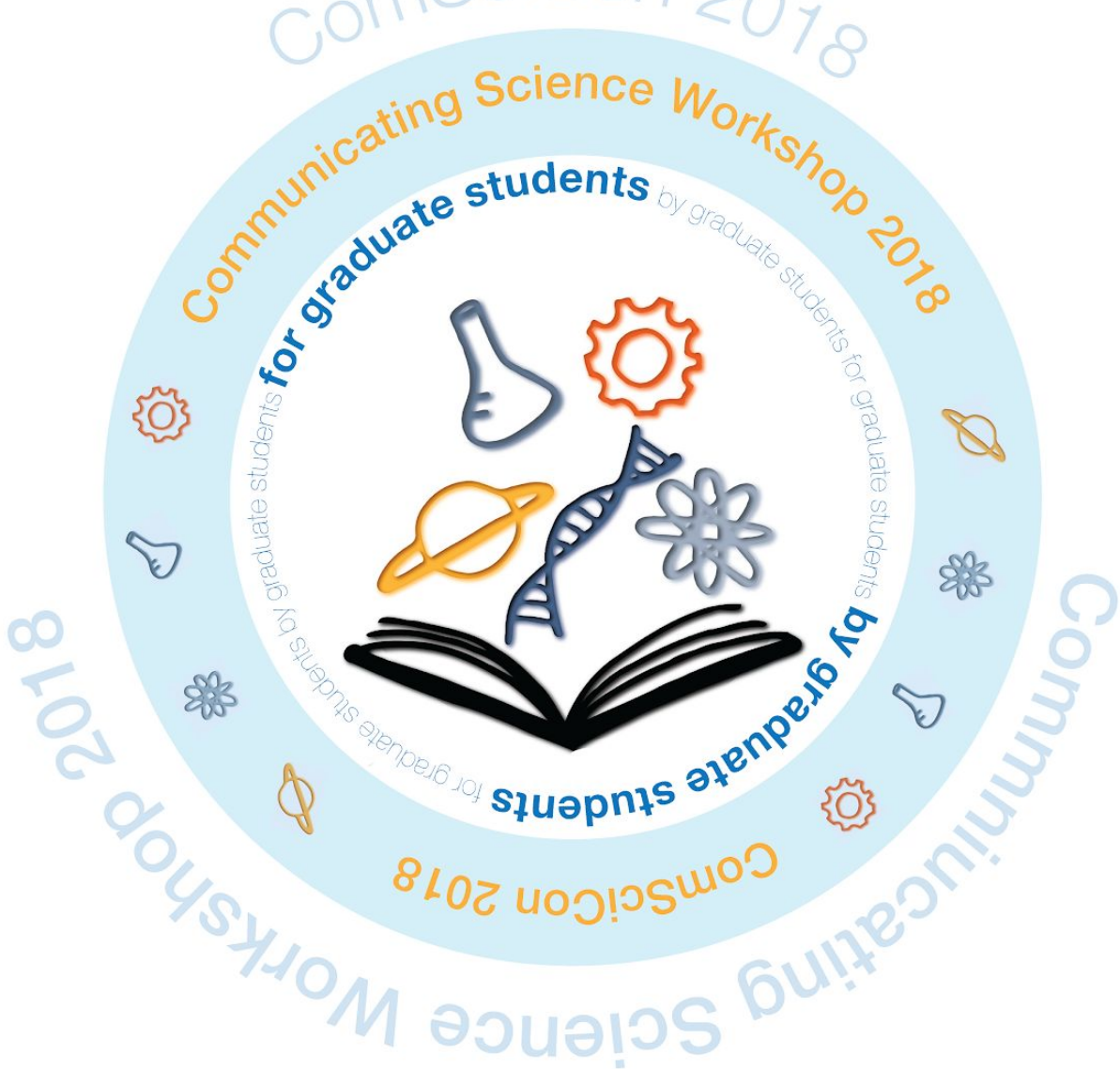

ComSciCon'18

Communicating Science Workshop 2018

June 14th - 16th, Boston, MA

#comscicon18

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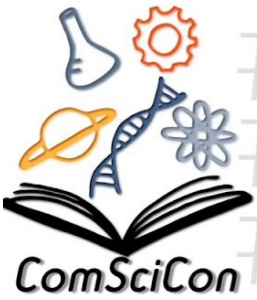

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Communicating Science
National Workshop 2018

Dear ComSciCon Participants,

Welcome to the ComSciCon 2018 Workshop, our 6th annual flagship event. We are extremely pleased to have you join us!

Since ComSciCon began in 2012, our goal has been to empower the graduate students who are poised to become future leaders in science communication, encouraging young scientists to expand the impact of research in their field to broad and diverse audiences as ambassadors for science and engineering. ComSciCon aims to connect these inspiring young scientists through our annual Flagship Workshop and the many Local Workshops held nearly a dozen cities across the country, allowing them to collaborate on new projects and expand the reach of their own initiatives.

We believe that graduate students have the greatest potential of any group to revolutionize how the scientific community interfaces with our broader society. Through science outreach, writing, digital media, founding scientific organizations, and other entrepreneurial endeavors, ComSciCon participants will help shape the culture and perception of science for future generations.

In the following three days, you will meet some of the most accomplished and ambitious science communicators from both American and Canada, exchange experiences and ideas through active discussion, collaborate together to revise your own works, and push the boundaries of your capabilities as a science communicator.

We are grateful, first and foremost, to the fifty remarkable graduate students from across the country that have traveled to Boston to pursue these goals. The opportunity for this cohort to meet, interact, and collaborate with each other is the fundamental function of ComSciCon. We thank the invited experts who have shared their time with us, guiding us towards these ends. And we applaud the sponsoring organizations and supporters of ComSciCon, whose enduring commitments have made this program possible. This year we are especially grateful to The Story Collider team for their mentorship and support of the ComSciCon organization and for our goals and future directions.

We know the test of this workshop's success will be how its impacts carry on with you throughout your career, whether through research, education, journalism, policy, or other ventures. We encourage you, from the moment you read this letter, to develop and maintain relationships with the participants of ComSciCon 2018, and reflect thoughtfully on how the principles discussed and exhibited here can be incorporated into your own practice. Thank you, again, and welcome to the ComSciCon community.

Yours truly,
The ComSciCon 2018 National Organizing Committee

Organizing Committees

Local Organizing Committee	Program Organizing Committee
Ben Cook, chair (Harvard) Harshil Kamdar, vice-chair (Harvard) John Lewis, vice-chair (Harvard) Amber Medina (Harvard) Chani Nava (Harvard) Dana Boebinger (Harvard) Gabriela Serrato Marks (MIT) Ian Weaver (Harvard) Olivia Ho-Shing (Harvard) Tarraneh Eftekhari (Harvard)	Alison Caldwell, chair (UC San Diego) Christina Sauer (Montana State) Eric Earley (Northwestern) Jaye Gardiner (U. Wisconsin, Madison) Liz Bajema (Northwestern) Mike Zevin (Northwestern) Ryan Venturelli (U. South Florida) Sadie Witkowski (Northwestern) Will Chen (U. of Washington)

Leadership Team and Staff
Carrie McDonough Erica Kimmerling Maria Drout Myeashea Alexander Nathan Sanders Pinar Gurel Rose Hendricks Shannon Morey Shayle Matsuda Susanna Kohler

Venue Logistics

The June 2018 ComSciCon National Workshop will be hosted at Emerson College in Boston, MA, June 14-16th, 2018.

The primary event venue will be the Bill Bordy Theater, located in at 216 Tremont Street. Additional break-out spaces will be in the Ansin Building (180 Tremont St), and the EPosterboard Session will be held in the Center Stage, at 122 Boylston St.

When you arrive, we will have a ComSciCon check-in booth inside the main entrance, where you can pick up a name badge and ComSciCon swag!

Connecting to WIFI

ComSciCon will have a dedicated wireless network throughout the conference. To connect, use the following WIFI network and password:

Network: ECwireless
Username: comsci_con
Password: 2Speak-clearly

Attendee Lodging

Attendees traveling from outside the Boston area will be provided double-occupancy lodging in the Emerson College Dorms: Paramount Residence Hall, 555 Washington St.

Upon your arrival to Boston, please check in at the dormitory (after Noon on Wednesday, June 13th). The Paramount Desk will be open 24 hours on check-in day. Simply enter the building, let security know you're a conference guest checking in, and you can find the Emerson staff at the desk at the end of the hallway. Emerson staff will have keys and a Summer Conference ID which will get you in and out of the residence and venue halls. You'll also be given a packet of policies and information, and be asked to sign a waiver.

Speaker Lodging

Invited Panelists and Speakers are provided a room in the DoubleTree by Hilton Boston, at 821 Washington St. Unless otherwise specified, your room will be billed to the ComSciCon group account. Please email us with any concerns (comscicon18@comscicon.org).

Parking

Limited parking near the workshop venue will be available at the City Park Garage, at 8 Park Plaza, Boston, MA 02116. Guests who have requested parking (please email comscicon18@comscicon.org) will enter the parking lot and take a ticket. Once you arrive to the workshop, we will have a payment voucher for you to scan when you leave the lot.

Program Schedule

Thursday, June 14th

8:30 AM	Breakfast
9:00 AM	Welcome to ComSciCon
9:20 AM	**Creative Storytelling** Panel ● Erica Simek Sloniker ● Matteo Farinella ● Jennifer Cutraro ● Adnaan Wasey
10:50 AM	Coffee break
11:00 AM	**Science Journalism** Panel ● Christine Casatelli ● Shraddha Chakradhar ● Nadja Oertelt ● Wade Roush
12:30 PM	Lunch
1:20 PM	**Diversity & Inclusivity** Panel ● Aradhna Tripati ● Brindha Muniappan ● John Johnson ● Ralph Bouquet
2:50 PM	Coffee Break
3:00 PM	Concurrent Workshops (in breakout rooms) ● **Mock Interviews** with Doug Dollemore ● **Data Visualization** with Steven Braun
4:00 PM	**Expert Review / Write-a-Thon and Pitch-Slam**
6:00 PM	Careers Dinner
7:15 PM	**Tangled Bank Screening** of *The Serengeti Rules* with Alex Duckles

Friday, June 15th

8:30 AM	Breakfast
9:00 AM	**Science Ethics** Panel ● Joel Reynolds ● Maiamuna Majumder ● Kelly Hills ● James Hamblin
10:30 AM	Coffee break
10:45 AM	**Advocacy Workshop** with the Union of Concerned Scientists ● Shreya Durvasula ● Danielle Fox
12:15 PM	Lunch and **AR/VR demonstration** on the Boston Common ● John Craig Freedman ● Raul Reis
1:15PM	**Keynote Presentation: Liz Neeley**
2:30 PM	**Storytelling Workshop** with Neil Bardhan
6:00 PM	Group Photo
6:30 PM	Banquet Dinner at Maggiano's Little Italy

Saturday, June 16th

8:30 AM	Breakfast
9:00 AM	**ComSciCon Informational Session**
10:30 AM	**EPoster Session** in the Center Stage
12:30 PM	Lunch
1:00 PM	Write-A-Thon Expansion ● **Video/VR** with Alie Caldwell and Christina Sauer ● **Podcasts/Radio** with Sadie Witkowski ● **K12** with BiteScis ● **Websites** with Eric Earley ● **Social Media** with Erin Winick and Cátia Bandeiras
4:00 PM	Closing Remarks

Invited Experts

Creative Storytelling Panel	
	**Adnaan Wasey** is an executive producer with a history of championing the work of a diverse group of creators for new platforms. He's created media for some of the most admired film, news and information organizations, including PBS, The New York Times, Snapchat and WNYC, and his work has been honored by the Emmy Awards and Webby Awards, among others. In 2018 he became the recipient of the first Rita Allen Fellowship for Science Communication. Connect with Adnaan at adnaan.com.
	**Erica Simek Sloniker** is a Visual Content Specialist for The Nature Conservancy in Washington State. She makes science and conservation look good through leading in the design and production of maps, infographics, and other visual content tools that advance conservation storytelling. With a background in geography and art, Erica enjoys using the strength of visual communications to bring understanding and awareness to complex environmental issues and concepts. Erica uses her creativity and design skills to bring life to science communications, marketing, fundraising and philanthropic giving efforts across the Conservancy. Erica received her bachelor's degree from Western Washington University's Huxley College of the Environment.
	**Jenny Cutraro** is a science communications professional. She's the founder and director of a new science engagement program called Science Storytellers and a managing editor at the global citizen science organization SciStarter. She also served as Editorial Project Director for science education at WGBH in Boston, where she developed award-winning parent and educator resources for the Emmy-nominated PBS KIDS science program PLUM LANDING and for PBS Learning Media. Her writing has appeared in outlets including The Boston Globe, Scholastic Science World, Science News for Students, and the New York Times Learning Network.
	**Matteo Farinella** is a neuroscientist, cartoonist and illustrator. After completing a PhD in neuroscience Matteo combined his scientific expertise with a lifelong passion for drawing and started making educational comics, illustrations and animations. He is the author of *Neurocomic* (Nobrow 2013), published with the support of the Wellcome Trust, *Cervellopoli* (Editoriale Scienza 2017) and *The Senses* (Nobrow 2017). In 2016 Matteo joined Columbia University as a Presidential Scholar in Society and Neuroscience, where he investigates the role of visual narratives in science communication. Working with science journalists, educators and cognitive neuroscientists he aims to understand how this new medium may affect the public perception of science and increase scientific literacy.

Science Journalism Panel	
	**Christine Casatelli** is a career journalist, covering technology, business, government and sports in Boston, Washington, D.C., and Japan. She has worked for the *International Herald Tribune*, the *Boston Herald* and *The Boston Globe.* Casatelli was part of the NOVA team for a documentary called *School of the Future* and now works as an editorial project director for WGBH. An affiliated faculty member at Emerson College, she teaches *Beat Reporting Across Media* and *Online Multimedia Journalism*. She is currently a Ph.D. student in education at the University of Massachusetts Lowell with a research focus on digital writing.
	**Nadja Oertelt** is a founder of Massive, a science media company that aims to engage the public and scientists in new ways. Nadja formerly worked as a senior video producer at Mashable and was once a science producer at Buzzfeed and Vice. She worked at HarvardX for three years producing The Fundamentals of Neuroscience with hundreds of thousands of global students as well as artists, scientists, museum professionals, doctors and researchers. She graduated from MIT in 2007 with a BS in Neuroscience and worked in labs at MIT, Harvard and Cambridge University. She has produced a myriad of digital science shorts and animation for outlets like Vox, The Atlantic, The Marshall Project, Vice, Buzzfeed and Mashable, and she co-produced and co-directed a feature length documentary that premiered in 2013 called Unorthodox.
	**Shraddha Chakradhar** is a science journalist based in the Boston area. She is currently Nature Medicine's associate news editor. She previously worked at PBS' science documentary show NOVA as a researcher. Her work has appeared in Scientific American, The Open Notebook, Nature Outlook and NOVA Next. She is a graduate of Boston University's Science and Medical Journalism master's program.
	**Wade Roush** is a veteran science and technology journalist, audio producer, and consultant based in boston. He is the producer and host of the *Soonish* podcast, and a co-founder of the Hub & Spoke podcast collective. From 2015 to 2016, Roush was the Outreach Officer for the MIT Program in Science, Technology, and Society, and was the acting director of the Knight Science Journalism Program from 2014 to 2015. From 2007 to 2014, Roush was chief correspondent, San Francisco editor, columnist, and editor-at- large at Xconomy, an online news network covering high-tech innovation. From 2001 to 2006 he was senior editor and San Francisco bureau chief at MIT Technology Review. In earlier posts he was the Boston bureau reporter for Science, managing editor of supercomputing publications at NASA Ames Research Center, and Web editor at e-book startup NuvoMedia. Roush earned a B.A. in history and science from Harvard College in 1989 and a PhD in the history and social study of science and technology from MIT in 1994.

Diversity & Inclusivity Panel	
	**Aradhna Tripati** is a geoscientist, climate scientist, and advocate for diversity. She is the director of the Center for Diverse Leadership in Science and a tenured professor at UCLA. Her research includes advancing new chemical tracers for the study of environmental processes, and studying the history of climate change and Earth systems. She has over 70 publications in Nature, Science, the Proceedings of the National Academy of Sciences, and other journals. Professor Tripati engages in activism to promote diversity, equity, and inclusion in the sciences and in the workforce, with a particular focus on addressing the underrepresentation of women, people of color, and other minorities in STEM fields. She has been awarded for her contributions to research, teaching, and service, including the Presidential Early Career Award in Science and Engineering and the Bromery Award.
	**Brindha Muniappan** is the Director of Education and Public Programs at the MIT Museum. She actively produces programs for the public, including educational workshops for middle and high school students, speed-geeking science programs for adults, and hands-on explorations of engineering and technology for people of all ages. Brindha's passion for science communication led her from the research bench into the field of informal science education. Prior to joining the MIT Museum, she developed exhibit content for the Marian Koshland Science Museum, explored multiple methods for public communication of science as an educator at the Boston Museum of Science, and taught toxicology at the University of Guam. Brindha holds degrees in environmental engineering and biological engineering from MIT.
	**John Johnson** is a Professor of Astronomy at the Harvard-Smithsonian Center for Astrophysics. In 2012, he was awarded the Sloan Foundation Research Fellowship, the David & Lucile Packard Fellowship, the Feynman Teaching Prize, and the AAS Newton Lacy Pierce Prize for "for major contributions to understanding fundamental relationships between extrasolar planets and their parent stars." In 2013, he was named one of Astronomy Magazine's "Ten Rising Stars" in astrophysics. In addition to papers in professional journals and conferences, his work has been featured in the magazines Sky & Telescope, Astronomy, Discover and New Scientist. He blogs regularly at this URL and you can follow him on Twitter as @astrojohnjohn.
	**Ralph Bouquet** is the NOVA Labs Outreach Coordinator and an advocate for the use of inquiry and games/interactives in STEM classrooms. NOVA Labs is a new digital platform from the producers of PBS's NOVA that engages teens and lifelong learners in games, interactives, and videos that foster authentic scientific exploration. Before NOVA, Ralph taught high school biology and chemistry in Philadelphia with Teach For America and later developed web and mobile apps with the Canary Calendar team as a co-founder. Ralph received his B.A. from Harvard University, and studied secondary science methods and urban education while completing his M.Ed. at UPenn. In his role at NOVA, Ralph combines his experience as a science educator and tech startup co-founder to help design the educational framework for the NOVA Labs games and interactives and to find creative ways to reach new audiences.

Concurrent Workshops (Thursday)

Mock Interviews

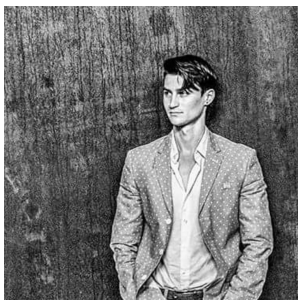
Doug Dollemore is a Senior Science Writer at the American Chemical Society, and has more than 25 years of experience as a journalist. For the past six years, he has run the "Speak Simply" project, which videotapes members at ACS National Meeting and other Society events. This footage is then used to help scientists understand how jargon can lead them astray when speaking with a lay audience. Doug also worked at newspapers in Oregon, Arizona and California. His stories have been featured in Prevention and Men's Health magazines. Doug earned his bachelor's (Community Service and Public Affairs) and master's (journalism) from the University of Oregon. Born in Lewiston, Idaho, he now lives with his wife and two children in Silver Spring, Maryland.

Data Visualization

Steven Braun is an information designer whose work focuses on the use of visualization as a narrative medium for communicating across disciplinary lines. He is currently the Data Analytics and Visualization Specialist in the Northeastern University Libraries and Associate Director of the Northeastern University Visualization Consortium, where he works as a consultant, designer, analyst, and instructor. As a scientist, humanist, and artist, his interests include the philosophy of information, the nature of representation in visual media, and the role of information design in pedagogy. To view examples of Steven's work, see http://www.stevengbraun.com.

Science Ethics Panel

James Hamblin is a writer and senior editor at *The Atlantic*. He hosts the video series If Our Bodies Could Talk, for which he was a finalist in the Webby awards for Best Web Personality. He is a past Yale University Poynter Fellow in journalism, and he has lectured at Harvard Medical School, Wharton Business School, Columbia Mailman School of Public Health, and SXSW, among others.



Joel Michael Reynolds is the Rice Family Postdoctoral Fellow in Bioethics and the Humanities at The Hastings Center and Assistant Professor of Philosophy at the University of Massachusetts Lowell starting this fall. His teaching, research, and public engagement center on the relationship between values, bodies, science, and society, especially as these relate to biomedical practice and people with disabilities. His work has been featured in TIME, HuffPost, Aeon, TedxEmory, and the UnMute Podcast.

	**Kelly Hills** was a software test engineer before she returned to school for bioethics. Kelly utilizes her expertise in these fields to consult on emerging ethical issues in technology for both non- and for-profit companies. Her academic research sits at the intersection of personal autonomy and consent vs conceptions of the public good. Kelly's ethics-focused commentaries have appeared in *The Guardian's Comment is Free*, *Quartz,* and *Nature: Medicine*. She is a principal of Rogue Bioethics, a boutique bioethics consulting firm.
	**Maimuna (Maia) Majumder** is an Engineering Systems PhD candidate at MIT and computational epidemiology research fellow at HealthMap. Before coming to MIT, she earned a Bachelors of Science in Engineering Science (with a concentration in Civil and Environmental Engineering) and a Masters of Public Health in Epidemiology and Biostatistics at Tufts University. Her research interests involve probabilistic modeling, data mining, and "systems epidemiology" in the context of public health. She also enjoys exploring novel techniques for data procurement, writing about data for the general public, and creating meaningful data visualizations.

Advocacy Workshop	
	**Danielle Fox** is a campaign manager and manager of the Science Network for the Center for Science and Democracy at the Union of Concerned Scientists. As campaign manager, Danielle develops and implements campaigns for advocates, partners, and scientists to protect and promote the role of science in democratic dialogue, and the policy making process. She also manages the UCS Science Network, which offers scientists and technical experts training, resources, and engagement opportunities to grow as advocates and put their expertise to work for public good. Danielle's passion is in building networks and opportunities that harness people's talents to affect change. She earned a master's in public affairs from the University of Massachusetts Boston and a B.A. in international development and social change from Clark University.
	**Shreya Durvasula** is the Science Network senior outreach coordinator for the Union of Concerned Scientists. Shreya works to expand the reach and breadth of the Science Network. In addition, she diversifies the ways scientists can engage on issues they care about through UCS, and develops trainings and engagement opportunities tailored to early-career scientists. Prior to joining UCS, Shreya was a program and training specialist with the American College of Obstetricians and Gynecologists, where she provided training to programs aimed at improving infant health. Shreya has a B.A. in chemistry from Washington and Lee University.

AR/VR Demonstration	
	**John Craig Freeman** is a public artist with over twenty years of experience using emergent technologies to produce large-scale public work at sites where the forces of globalization are impacting the lives of individuals in local communities. His work seeks to expand the notion of public by exploring how digital networked technology is transforming our sense of place. Freeman received a Bachelor of Art degree from the University of California, San Diego in 1986 and a Master of Fine Arts degree from the University of Colorado, Boulder in 1990. He is currently a Professor of New Media Art at Emerson College in Boston.
	**Raul Reis** is the Dean of the School of Communication at Emerson College, and a tenured professor in the Department of Communication Studies. Reis has published extensively in academic journals and books on topics such as the impact of mass media on traditional communities; Latin American and Brazilian media; higher education; and science, health and environmental communication. Previously to entering academia, Reis worked for many years as a newspaper, television and magazine reporter and editor for Brazilian and U.S. news organizations. As a journalist, he covered politics, sports, city news, and science and the environment, among other topics.

Keynote Presentation	
	**Liz Neeley** is the Executive Director of The Story Collider. She's a marine biologist by training. Studying the color patterns of tropical fish has, oddly enough, inspired all of her science communication work. She spent a decade helping scientists connect with the policy making and media worlds, and she convinced hundreds of researchers to get on Twitter. She's not sorry about that either (usually).

Storytelling Workshop	
	**Neil Bardhan** lives and works in Philadelphia. He studied cognitive science at The Johns Hopkins University and earned a Ph.D. in Brain and Cognitive Sciences at the University of Rochester. His academic career included psycholinguistics research in The Netherlands and teaching linguistics in Germany. Since 2013, he has worked in science communication consulting through one-on-one coaching services as well as workshops using his academic experiences and his training in performance. He has taken courses in improvisation and sketch writing at PHIT Comedy, where he is a company member. He performs short-form improv with The N Crowd. His science communication work draws on storytelling principles, including coursework with Kevin Allison, collaborations with First Person Arts, and a Story Collider performance in New York. Billy Penn honored him on their 2016 Who's Next: Communications list.

Screening by HHMI Tangled Bank Studios

Howard Hughes Medical Institute (HHMI) is the leading private supporter of scientific research and education in the United States. Its scientists have made trailblazing discoveries that advance both human health and our fundamental understanding of how life works, and have garnered 16 Nobel Prizes. Its BioInteractive division produces and provides educational media to millions of students across the globe, and its grants program aims to transform science education in universities and colleges into a creative, interdisciplinary endeavor that reflects the excitement of real research.

HHMI Tangled Bank Studios is a production company established and funded by HHMI as an extension of its longstanding science education mission. Dedicated to the creation of original science documentaries for broadcast, theatrical and digital distribution, the company's award-winning programs address important contemporary issues and capture compelling stories of discovery across all branches of scientific inquiry.

We will be joined by Alex Duckles, Science Education Fellow, who will be hosting the screening of Serengeti Rules, a film about five unsung heroes of modern ecology, which recently premiered at the 2018 Tribeca Film Festival.

tangledbankstudios.org @Tangled_Bank_

HHMI Screening	
	**Alex Duckles** oversees digital outreach, social media and digital distribution for web-first content, including the original YouTube series I Contain Multitudes about the human microbiome starring best-selling author Ed Yong. Duckles joined HHMI Tangled Bank Studios as a science education fellow to explore the intersection of science storytelling and digital audiences. Duckles studied ecology and filmmaking at Dartmouth College before heading to New Zealand for a master's of science communication. While at the University of Otago, Duckles focused his research on narrative models of science storytelling, and produced an award-winning documentary on destructive algae blooms. In 2014, Duckles joined PBS Education and later PBS Digital Studios, working on acclaimed digital series including The Good Stuff and Full-Time Kid. Duckles specializes in producing short-form video content that brings emotionally-driven science storytelling to platforms like YouTube and Facebook.

Poster Session Abstracts

LIB LAB the Library Laboratory: hands-on multimedia science communication
Aaron Fillo
Teaching scientific research topics to a K-12 audience in an engaging and meaningful way does not need to be hard; with the right insight and techniques it can be fun to encourage self-guided STEAM (science, technology, engineering, arts, and mathematics) exploration. LIB LAB, short for Library Laboratory, is an educational video series produced by Aaron J. Fillo at Oregon State University in partnership with the Corvallis–Benton County Public Library targeted at K-12 students. Each episode explores a variety of scientific fundamentals with playful experiments and demonstrations. The video lessons are developed using evidence-based practices such as dispelling misconceptions, and language immersion. Each video also includes directions for a related experiment that young viewers can conduct at home. In addition, science kits for these at-home experiments are distributed for free to students through the public library network in Benton-County, Oregon. This poster will focus on the development of multimedia science education tools for communicating combustion fundamentals and several techniques that scientists can use to engage with a broad audience more effectively. Using examples from the LIB LAB YouTube Channel and collection of hands-on science demonstrations and take-home kits, this poster will present STEAM education in action. Check out more at www.liblabscience.com.

Science in the News: Bridging the Communication Gap between Scientists and the Public
Alyson Warr**,** Dana Boebinger
Science in the News is a graduate-student organization which, for nearly 20 years, has sought to bridge the communication gap between scientists and the general public. We achieve this through a variety of initiatives, including free lecture series, podcasts, science cafes, a daylong scientific conference, blog posts and more. We also work towards this goal by providing training for graduate-student scientists to effectively communicate their science to the public with our proven peer-to-peer feedback model.

Science on Wheels: meeting a scientist right in your hometown
Arianna Soldati
The gap between scientists and citizens is wide and expanding. 90% of Americans can't name a living scientist. As humans we distrust whom we don't know, and people don't know scientists. I set out to change that to show that science isn't just something that happens in the Ivory Tower's labs—it is used in everyday life. In order to do that, I founded Science on Wheels. Science on Wheels is a graduate student-run travelling outreach program for adults living in rural communities across Missouri. Access is a big challenge in science outreach, and it is a social justice issue. There are often plenty of chances to engage with scientists available to people living in college towns and bigger cities, but folks living in rural communities do not benefit from the same opportunities. Our demographic target group is adults, because they are often left behind in the science outreach effort, and with over 3 in 4 US citizens age 18 and over, this is a glaring omission. Science on Wheels travels to rural areas in any county of the State that requests it at no cost to the local community. Four to six graduate students give a five-minute overview of the relevance of their research to everyday life, and then mingle with the adult audience to chat more about science. In its pilot season, Science on Wheels successfully reached over 150 people across seven Counties. My vision for Science on Wheels is for every resident of the state of Missouri—and one day of the U.S.—to have met with at least one scientist right in their hometown.

Science Meets Food: The Official Blog of the Institute of Food Technologists Student Association
Bryan Quoc Le
Science Meets Food is a blog devoted to explaining the science and technology behind food. Officially sponsored by the student-led Institute of Food Technologists Student Association with more than 2,900 student members across 50 universities, Science Meets Food is a vehicle for graduate students involved in food science to engage the public on topics ranging from myths regarding food production, the science behind flavors and taste, trends in food technology, food science education resources, and scientific career opportunities in the food industry. The blog actively posts three to four articles per month both in written and podcast form, and is regularly shared through social media platforms such as Twitter, Facebook, and Reddit. Since launching in 2011, Science Meets Food has gone on to receive the Top 15 Food Science Blog award. Currently, the blog is run by 13 core members and receives occasional guests posts from outside the IFT community. Visit us at http://www.sciencemeetsfood.org, or follow us on Twitter @IFT and www.Facebook.com/IFTSA.

STEMM Diversity @ McGill: Bringing together a community
Charles Xu, Jessica Ford, Kiran Yendamuri
STEMM Diversity @ McGill is a student-driven initiative at the Redpath Museum to promote diversity in Science, Technology, Engineering, Math and Medicine. With the help of various offices, departments, and faculties across campus as well as members of the greater Montreal community, we were able to raise over $8,000 to launch the project. The initiative exists primarily as an online exhibit and a colouring/activity book. The online exhibit centers around a series of interviews of diverse students and faculty about their personal experiences and opinions relating to the roles of gender and ethnicity in STEMM. These interviews were conducted by students and staff at the Redpath Museum in collaboration with TVM: Student Television at McGill. The interviews are available to view both online as well as on two touchscreen exhibits in the Redpath Museum. The colouring/activity book is meant to engage the thousands of young children and school groups that tour the museum annually and features ‘Draw Yourself as a Scientist’ activities and highlights famous women and minorities in science, with information and activities based on their research. The colouring book’s reach has since expanded throughout and past the McGill community to the NSERC Gender Summit 11 as well as elementary schools, after school programs, and libraries across Ontario and Quebec. What started initially as a small project among students in the museum has now blossomed into a hub for various student groups, each involved in different aspects of promoting greater diversity within STEMM. Our active Facebook group is now well over 200 members strong and growing. The vast majority of members are McGill students and members regularly share events related to diversity across campus and in the local Montreal area as well as articles about diversity in STEMM found across the internet.

Calling all Junior Bat Biologists: Integrating bats, sci comm, and the next generation of citizen scientists

Cylita Guy

The High Park Nature Centre's (HPNC) Urban Bat Project aims to dispel myths and negative perceptions surrounding bats. Throughout the summer HPNC organizes expert led talks and nature walks to educate the public on local, urban bat species. They also have a lending library of hand held acoustic bat detectors that visitors can sign out and take home with them to listen for bats in their own backyards. Visitors who sign out detectors are sent home with a data collection sheet to record the time, location, and characteristics of the bat calls they hear. This citizen science data will help scientists better understand the bat species present in Toronto. To compliment their existing adult programming, I worked with HPNC to develop a Junior Bat Biologist program. As part of this program, aspiring young "bat biologists" must complete two tasks. Children attend an evening family bat walk or daytime "meet the scientist" session where I talk to them about bats and how we study them. Children have the chance to see a mist net, try scanning for a microchip in a stuffed bat, and listen for radio tag beeps to see how we track wildlife. Children then sign out one of the bat detectors and take it home with their parents to collect data of their own. When children return their completed data collection sheet, they become official HPNC Junior Bat Biologists. So far, all of our Junior Bat Biologist programming has been very well attended and parents have appreciated the emphasis on not only animal facts, but also the methods and process used by wildlife scientists. However, we're always looking to improve. Do you have thoughts on how to best foster public excitement about nature in urban areas? Are you part of an organization that has nature themed children's programming? Would you like to set up a similar citizen science project? Then I'd love to discuss the Junior Bat Biologist program with you and welcome feedback!

QuestX: Exploring the world through the lens of science

Danaan DeNeve Weeks

QuestX is a science outreach organization whose mission is to bring together researchers and community members to promote scientific literacy, public-scientist engagement, and to inspire empowerment through learning and sharing the sense of wonder we feel towards the natural world. We foster communication between researchers and the lay public through hands-on activities in classrooms, at events, and in collaboration with other outreach organizations. We occasionally also conduct scientist-lead nature trips. We promote public understanding of scientific concepts and awareness of how science and nature affect all of daily lives through blogs, podcasts (new), and videos.

The Oklahoma Science Project: Computational Science Lessons are a Click Away

Kate Lachance, Kayla Davis, Forrest Rogers, Amber Anderson, Frank Xie, Rebecca Fine, Tarreneh Eftekhari, Noah Bloch, Emily Kerr, Jane Huang

Oklahoma has a STEM education budget of $0. The state continues to lead the nation in spending cuts which have led to drastic measures such as 20% of Oklahoma's public schools opening their doors only four days a week. With no end in sight to the cuts to education funding, it is time to prioritize higher quality education, particularly STEM education, in the state and across the country. Our interdisciplinary team of scientists at Harvard University has worked to create computational science lessons to teach entry level programmers to solve science problems using the Python programming language. These lessons are tailored specifically to high school students and introduce the basics of programming and various science topics including the inheritance of human genes and the orbits of a planetary system. Students navigate through lessons solving scientific problems, all while learning the fundamentals of programming. Programming is a skill set that is valuable to many different STEM careers and one that is easily accessible from home or the local library. This effort is aimed at students who are excited about learning programming and science topics, but who do not have adequate resources available in their school or community.

EcoReach: Connecting ecologists at UGA with school-age students throughout Athens, GA
Kaylee Arnold
EcoReach is a graduate student led outreach organization in the Odum School of Ecology at the University of Georgia. The purpose of this organization is to connect student and professional ecologists at UGA with school-age children in order to heighten the awareness of ecology and environmental issues. By interacting with young people, we hope to raise enthusiasm for science, while supplementing the schools' curricula. We also serve our community through informal educational opportunities, such as creating activities for local scout groups, providing judges for science fairs, and presenting programs for local science days. In addition to providing information regarding ecological questions and themes, EcoReach also strives to connect ecologists of many backgrounds to low income students and students of color who may otherwise not be exposed to scientists or appreciators of the environment and wildlife. Like many STEM fields, ecology has been historically dominated by white individuals, and many of these ecologists built a love and passion for the environment at an early age. EcoReach's overarching goal is to spark an interest in ecology within school-age children, and to hopefully help to make the field of ecology a little more diverse and inclusive. Follow EcoReach everywhere @EcoReachUGA.

STEM Scouts -- Bringing the Boy Scouts of America and STEM Together
Kristen Vogt Veggeberg
Between letting girls in and distancing itself from many organizations, the Boy Scouts of America is heavily looking towards the future, especially with the advent of the STEM Scouts program. In 2014, the Boy Scouts of America piloted a new co-ed program called STEM Scouts in Knoxville, TN, and came to Chicago in 2015, where it has grown to include hundreds of youth, as well as partnerships with multiple universities in the area. STEM Scouts is designed to teach young people science, technology, engineering, and mathematics, as well as develop skills in leadership and community organization, unique among science programs for American youth. It also uses methods such as the Scout Oath and Scout Law, setting and achieving goals, uniforms, leadership skills, and adult role models in these fields, such as researchers at Northwestern University and engineers from Abbott Labs. STEM Scouts are organized into groups called Labs with other students their age, and meet throughout the school year. Because we are part of the Boy Scouts of America, we are also about building communities and families through Scouting as well. How we go about these methods is explained, as well the benefits of outreach within Scouts.

We the Scientists: Advocating for Pro-Science Policy
Laura Long, Catherine Braine, Macayla Donegan, Luke Nunnelly, Sebastian Rolotti, Leslie Sibener
We the Scientists, in order to form a more reality-based union, provides constituents tools to hold their elected officials accountable for science issues and advocate for science-based policy. Our approach is two-pronged: first, we compile factsheets of how individual legislators have voted on science-related legislation, and secondly, we provide educational resources for outreach and advocacy. We have compiled a list of science-relevant legislation in the United States House of Representatives over the past three years and created individual factsheets detailing the voting record of all current House members on this legislation. We are currently expanding our database to include the U.S. Senate, New York State Senate, and New York City Council. As we expand into chapter membership, we hope to track science-relevant legislation at state and local levels across the country.

Science Teaching through Art (STAR): Helping Scientists find Creative Approaches to Share their Science

Leslie Koyama

Visual aids are powerful tools for engaging a wide variety of audiences. A well designed visual aid can grab people's attention, instill a sense of wonder, and distill complicated concepts to their essence. Science Teaching through Art (STAR) is a unique graduate student organization that trains scientists to take advantage of the strengths of visual aids to engage audiences in conversations about their research. Through a series of interactive workshops, participants in the STAR program learn storytelling skills and design principles to create striking and effective visuals including infographic posters, videos, and 3D printed props. In addition, STAR provides workshop participants with the opportunity to present their visual aids to the public through partnerships with local high schools, community colleges, and Stanford organizations. From workshops to presentations, STAR provides Stanford scientists with a truly unique experience to gain a new perspective on their research and test new and creative ways to communicate that research with other scientists and the public.

Discipline-Specific, Peer-to-Peer Coaching: The MIT Communication Lab Model

Lisa Volpatti

The MIT Communication Labs are designed to empower students and postdocs to become confident communicators by helping them write, speak, and design visuals more effectively. The core of the Comm Lab model is peer-to-peer, discipline-specific science communication coaching. Specially trained graduate students and post docs staff the Comm Labs and provide individual coaching appointments, host workshops, and create online toolboxes of discipline-specific communication guides. These open-access "CommKits" serve more than just the MIT community, averaging 140 views/day with 60% of users being outside of Massachusetts. Since 2013, six departments/programs have launched Communication Labs at MIT, currently employing over 50 Communication Fellows. The MIT Comm Lab model is spreading: in 2017 we held the first Summer Institute, a four-day, hands-on workshop aiding attendees in adapting the Comm Lab model. Using principles from the Summer Institute, Brandeis University launched its own Science Communication Lab in November 2017. We hope this growth will continue and enable more scientists and engineers to become effective communicators.

UC Riverside Entomology Outreach: Teaching About Insects in Classrooms and Public Events

Madison Sankovitz

Insects are often publicly stigmatized, despite their beneficial ecosystem services and ubiquitous nature. To help alter this perception of insects, the University of California Riverside Entomology Department has created an outreach program dedicated to educating about insects in elementary schools and at public events, mainly staffed by graduate students. Our goal is to inspire young scientists and help the general public become more comfortable with insects through hands-on insect interactions and activities that harness the resources of the department. We believe that students of a variety of grade levels and background should be able to see themselves in science careers and we aim to inspire that vision. Additionally, we want to provide insight into the world of insects, enabling people to understand how they impact human and ecosystem health. Our program includes various extracurricular activities with live and preserved insects and other arthropods for people to see and touch, as well as presentations on a variety of topics including insect diversity, metamorphosis, and what entomologists do. In addition to regularly-scheduled public events, we put on an annual Riverside Insect Fair downtown that attracts over 10,000 visitors each year and a Little Entomologists summer camp for kids. As graduate students, we are in a unique position as both students and scientists, helping to make this program effective by inspiring future entomologists and helping the general public become more comfortable and familiar with insects.

Rad Scientist: Exploring the Human Side of Science with Audio Stories
Margot Wohl
Most science media focuses on the breakthroughs. But what about the small steps, the missteps, and the human stories behind it all? These stories can be ignored, leaving the public with an incomplete understanding of what it means to be a scientist. That's why I started the Rad Scientist (formerly Salk Talk) podcast as a graduate student at UCSD. Audio storytelling is a great medium to engage audiences with behind the scenes narratives of science It's like someone is whispering in your ear- how much more intimate can you get?! Each episode of Rad Scientist introduces one San Diego scientist – their passions, their disappointments, their weird quirks – all with sound-rich production and jargonlite™ science explanations. The podcast won a local pitch contest for the San Diego based, NPR affiliate, KPBS. The first season profiled an astrophysicist that used to be in the band, Reel Big Fish, a reproductive biologist who thinks of sperm as foreign invaders, and a geneticist who talks to the plants she studies. Episodes from the first season received over 50,000 unique downloads and the show was just renewed for a second season. The barriers for making new science content is at an all-time low so the Rad Scientist creator also hopes to inspire others to make science-forward content. Hopefully less traditional science coverage like Rad Scientist and others can bring a more realistic view of science to the public and can make science more accessible, fun, and imbued with humanness.

Science, Facts, Farts, and Dragons: Creative Science Communication Content
Reyhaneh Maktoufi
What is more fun than scientific facts, research methodology, and academic life? Mixing those with farts, dragons, and doodles! That is what I do on my blog "The Cosmic Rey" where I come up with creative ways to do science communication. My goal is to make an emotional connection with the audience so I share with them the beauty of science, academic frustrations, the humor in pedagogy and more.
I produce different material such as "Weird Interviews" with faculties to get to know their weird human side, interested in movies, magic and dragons, or doodles that explain scientific concepts and a glimpse through my life in academia, my moments of doubt, exhaustion, and joy.
I hope to elicit my audience's curiosity by adding humor and unexpected juxtapositions, such as the Ethnography of Farts and the Sexy Insurance (An Introduction to Bow Chicka Bow Bow), while teaching them something exciting, and new. And to make my point about how science communication is more fun when it's weird, here's my abstract in doodle format:
https://drive.google.com/file/d/1fmsLyI6D62444SlBgYFk0yKSTP9KAj0_/view?usp=sharing

Sharing Your Science in One Hour Per Week
Ryan Harp, Abigail Ahlert
The University of Colorado Boulder has a thriving set of science communication and science policy groups, including Science Buffs, Women in Science and Engineering, and the Center for Science and Technology Policy Research. Despite seemingly broad interest, not a single class on campus focused on science communication as a stand-alone topic. Along with two other graduate students in the Department of Atmospheric and Oceanic Sciences (ATOC), I co-organized the creation of a weekly graduate student-led seminar course on communicating science to non-scientists, which was offered in the Spring 2018 semester. The goal of the seminar was to introduce the fifteen enrolled graduate students to varied topics—anywhere from communicating controversial topics to talking to the media to museum exhibits—and foster a greater interest in, and thoughtfulness about, science communication as a whole.

Evolution of a Mathematics Podcast: The 3 Seasons of Relatively Prime
Samuel Hansen
Relatively Prime: Stories from the Mathematical Domain began in 2011 with a Kickstarter Campaign that took until a few hours before it ended to reach its goal. Since then the podcast has gone through multiple seasons and formats, another successful round of Kickstarter funding and a failed attempt, moved over to Patreon, and even had live show. In this poster I will describe the successes and failures Relatively Prime has experienced over the last 7 years, the reasoning behind the decision to change format and funding source, the joy of making the exact thing I had dreamed of making, and the hard lessons learned trying to continue to make an independent reported show about mathematics while still making rent.

Bringing the Outdoors In: Environmental Education via YouTube
Sheryl Hosler
Science educational content on YouTube is emerging as a robust platform for engaging, effective science communication. I decided to leverage the popularity of online video as a format for learning by creating a channel that would exploit an under-used niche in the YouTube ecosystem. My channel, The Roving Naturalist, seeks to answer all of the questions you never knew you had about how humans and the natural environment interact. The challenge and irony of creating online environmental education videos is that the viewer is interacting with a computer rather than the natural environment. Through creative filming and storytelling, these videos bring the viewer into nature and inspire them to explore their own environment post-viewing. Video topics have included learning how to bird, how controlled burns are conducted on the prairie, and the concept of biophilia. I also take the opportunity to vlog when I'm in interesting natural areas like Pacific ocean tide pools or California scrub forest to allow my audience to explore new and different environments. A secondary goal of The Roving Naturalist is to amplify the voices of early-career scientists and show the general public that scientists are "normal people." The Explain Yourself series of interview videos has shared the stories of 10 young scientists in the last 8 months, and we hope to film many more this summer. As The Roving Naturalist grows and expands its reach, I hope to engage more online video consumers in environmental consciousness and activism.

Signal to Noise Magazine – Scientists Sharing Science
Stephanie DeMarco
Signal to Noise Magazine is a graduate student-run online science magazine based at UCLA. In addition to serving as a resource for the public to learn about science in a clear, accurate, and engaging way directly from the students doing the research, we also provide graduate students with an opportunity to learn how to communicate complex scientific concepts to a general audience through writing. Signal to Noise regularly publishes on a range of STEM topics from the stress of space-travel to parasitology of the Alien movies. We are currently transitioning into publishing quarterly issues of the magazine centered on a specific topic, starting with our June issue on the Opioid Epidemic. We will still be publishing articles on other topics in the intervening months, so we are always seeking pitches from graduate students and postdocs who want to practice and improve their science communication and writing skills. As we grow our magazine, we are also exploring other forms of science communication like podcasting and video production.

"Waste not, want not": Using lab waste for art

Tamara Marcus, Andrea Jilling

Anyone who has worked in a lab knows about the incredible amount of waste that goes into producing data. As a way to reduce this waste and reach new audiences typically overlooked by the scientific method, art and science students at the University of New Hampshire have combined forces to produce an art installation piece using non-hazardous lab waste collected from labs around the university. This STEAM (science, technology, engineering, art, and mathematics) project is being collaboratively developed by a trans-disciplinary team to communicate the realities of climate change to the seacoast region and to grow the conversation around what we as individuals can do to reduce and respond to the impacts of a changing climate. The installation will be revealed at a celebratory event at the end of the University of New Hampshire's scicomm week, also being organized by the poster's authors, and will be displayed in a location easily accessible by the local community.

Star Wars: The Science Awakens - Planetarium Show

Thanassis Psaltis

"A long time ago in a galaxy not so far away" making complex scientific concepts accessible to the public can be a difficult task. At the same time, science fiction has a strong public appeal and that can be a powerful ally for science communication. For this reason, a 360 full-dome show was recently produced and presented at William J. McCallion Planetarium at McMaster University. The show was divided in six sections, according to the original two trilogies, and in each of them different aspects of the Star Wars universe were examined from a scientific point of view. Questions such as: "Is it possible to create a lightsaber?", "How much energy would the Death Star require to destroy Earth?" and "Can planets like Tatooine and Hoth exist in our Universe?" were answered in an understandable and funny way. The show was sold out for each of its screenings, showing that was extremely popular with the audience and also received media attention.

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