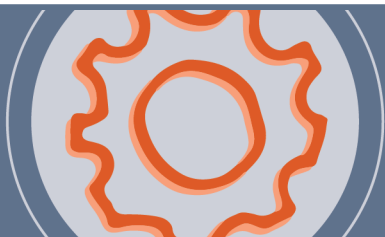




# ComSciCon'20

## Annual Report

A report on the eighth annual  
Communicating Science Conference  
for graduate students



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### Platforms for CSC20



Primary meeting place,  
almost all programming on  
here.



For smaller or one-on-one  
discussions, to share  
resources, etc.

# Letter from the Organizing Committee



Dear Sponsors, Supporters, and other Members of the ComSciCon Community,

2020 has presented us all with new and unexpected challenges, but we are happy to report that our organizing team overcame these challenges to host another excellent ComSciCon event this year. This past June, we hosted the eighth annual Communicating Science Conference flagship workshop online using a combination of virtual platforms including Zoom and Slack. Our 50 graduate student attendees assembled online across four days, and they once again had the opportunity to hear from experts in a variety of arenas related to science communication, participate in hands-on workshops to build new skills, and connect and collaborate with their peers to build exciting new projects for the future. We want to share with you a number of highlights from this year's program.

In 2020, we received nearly 1000 applications for 50 spots in the workshop, a statistic that demonstrates ComSciCon's robust reputation as the premier workshop for graduate student science communication leaders in North America. Thanks to new partnerships, for a third time, we were able to open our application to Canadian students, and we received almost 200 Canadian applications alone. We are thrilled to be able to extend this opportunity to another community of students, and we look forward to continuing to grow. The huge number of applications is also a testament to the increasing demand for professional development opportunities for early career researchers, and in particular the importance of and desire for communications training for the next generation of scientists.

This year our team of graduate student organizers put together a program including popular events from previous ComSciCon workshops and new, innovative workshop opportunities for our attendees. Panel discussions on pertinent issues such as Diversity, Equity and Inclusion in STEM and Science Communication in the Era of COVID-19 provided insight into vital areas of consideration for all scientists, while this year's special pre-conference discussion activity about the acts of racial violence in America this year primed everyone for considering science communication through the lenses of empathy and activism. Mary Poffenroth, YouTube educator and TedTalk speaker, joined us to give this year's keynote talk, while hands-on workshops included a workshop designed to help attendees learn how to fold, design, and write their own zines. We were also thrilled to offer attendees and organizers the chance to network via our first ComSciCon Game Night.

Beyond the flagship workshop, ComSciCon has continued to grow in myriad ways, providing more science communication training resources to early career researchers across the country. By the end of 2020, there will have been about 50 ComSciCon franchise workshops in more than a dozen locations, including Houston, Atlanta, San Diego, Ann Arbor, Chicago, and Boulder.

In the following pages, we have summarized the work done by ComSciCon during the last year, highlighting the value of our workshops for both the scientific community and the public. We are once again deeply grateful to our sponsors for making this work possible: MIT Office of Graduate Education, the American Astronomical Society, Burroughs Wellcome Fund, the American Chemical Society, AAAS/Science Careers, University of Maryland Graduate School Science Communication Certification Program, Community Initiatives, and many individual donors.

We are looking forward to another year of growth for ComSciCon. You can follow our progress at <http://comscicon.com/>.

Sincerely,

The ComSciCon 2020 Organizing Committee

# Organizing Committees



## Local Organizing Committee

Harshil Kamdar (Chair)  
Chantanelle Nava (Vice Chair)  
Dana Boebinger (POC Liaison)  
Gus Beane  
Claire Lamman  
Jamila Pegues  
Lieke van Son  
Xiaohan Wu

## Program Organizing Committee

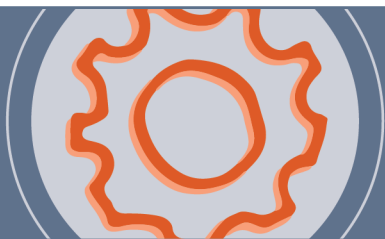
Sheryl Hosler (Chair)  
Jaye Gardiner (Vice Chair)  
Dana Boebinger (LOC Liaison)  
Bradley Allf  
Amrita Anand  
Diana Andriola  
Stephanie Hamilton  
Kristina Lenn  
Briley Lewis  
Reyhaneh Maktoufi  
Brianne Palmer  
Virginia Price  
Graycen Wheeler  
Margot Wohl

## ComSciCon Mission



**To empower early career scientists to become ambassadors for their field, propagating appreciation and understanding of research results to broad and diverse audiences.**





# Executive Summary

ComSciCon is a professional development workshop organized by graduate students, with the goal of providing other STEM graduate students with the skills and resources required to communicate their science clearly and effectively with a wide array of audiences. Our eighth annual flagship workshop, ComSciCon20, saw 50 graduate student attendees selected from nearly 1000 applicants coming together virtually for three days to learn from experts in science communication and from each other.

## Continued Growth

In 2020, ComSciCon celebrated the conclusion of its eighth annual leadership workshop. To date, almost 50 chapter events have been held across the US, Canada, and France. The Leadership Team works to sustain our flagship workshop and to promote the growth of chapter events internationally. Several new chapter events are already being planned for 2021!

## Partners

As in past years, more than 1000 graduate students from around the US and Canada applied to attend our flagship conference. We view this level of demand as a testament to the exceptionally valuable and high quality programming made possible through the invaluable support of MIT Office of Graduate Education, the American Astronomical Society, Burroughs Wellcome Fund, the American Chemical Society, AAAS/Science Careers, University of Maryland Graduate School Science Communication Certification Program, Community Initiatives, and many individual donors.

## Write-A-Thon

Write-A-Thon is an integral part of the ComSciCon program. Each attendee produced an original piece of science writing during the workshop. During the event, each student received one-on-one feedback on their writing from professional writers and editors—our invited experts—and from their peers. With the help of ComSciCon organizers, attendees are now seeking publication for their work at local and national outlets in print and online. More than ten of these pieces have already been published online and in print.

## Special Sessions

As our Program Organizing Committee continues to innovate, we've not only brought back elements of previous ComSciCon workshops, but also added short hands-on workshops. This year, we had sessions focused on data visualization, zine-making, empathy, science communication & theatre, and creative writing

## ePoster Session

On the first day of ComSciCon20, a virtual ePoster session was held via Zoom for one hour in breakout rooms. Participants were able to move freely among the twenty talks, which ranged from blogs to podcasts to specific research projects. These talks initiated discussions among participants and organizers alike and provided the potential of collaboration on various projects.

## Keynote Address

The keynote speaker for ComSciCon20 was Mary Poffenroth, a science communicator and lecturer at San Jose State University. Mary designed and led a keynote that was part motivational lecture and part workshop, with small activities designed to get ComSciCon attendees thinking about how best to frame and present their scicomm projects.



# Testimonials



*"This was such a poignant time to spend several days thinking deeply about science communication with such a talented group of scientists and communicators. With COVID-19 and the growing strength of the Black Lives Matter movement, we had a chance to have **real, honest conversations** in a safe space, and strategize on ways that we can best use our science communications skills to make the world a better place. I felt so fortunate to be part of the 2020 Flagship group, and I know what I learned there will serve me well in the years ahead."*

- Christa Avampato, Arizona State University

*"An **excellent opportunity** to learn about science communication and to reflect on the ways science communication intersects not only with our lives as researchers, but as people."*

- Anonymous

*"ComSciCon was an **absolute wealth of inspiration**, skill-building and connection making, even though it was totally virtual this year! I left with more confidence in the future of SciCom than I'd expected."*

- Kathryn Vaillancourt, McGill University

*"Unlike so many other attempts to 'be productive' in 2020, ComSciCon was able to **captivate, educate, and inspire** me to work. Specifically, it motivated me to share my writing in ways I haven't ever before. I learned about how to be more creative, inclusive, and focused. I'm so grateful to have had the opportunity to participate and grow with such an inviting group!"*

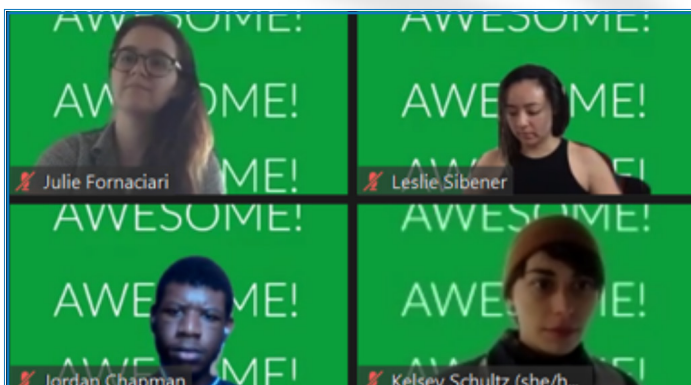
- Leslie Sibener, Columbia University

*"If I had to summarize my ComSciCon experience in one word it would be - **'transformative'**! Because it was one of those experiences that you know changed and transformed you forever. I literally felt like I came into the workshop one person and came out of it a different one — not just different, but better, more compassionate, more confident, more creative and even happier!"*

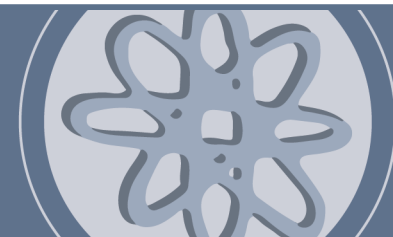
- Tatiana Diacova, UC Davis

*"ComSciCon was so enormously helpful for me. I got my first science writing piece published just a few days after the conference ended. I feel like I walked away from the whole thing with an **invigorated** commitment to the craft of science communication, a deeper understanding of how to communicate science, and a better connection to the scicom community."*

- Kelsey Schultz, University of Oregon



# Panelists



Science communication experts from a broad range of backgrounds joined us at ComSciCon20, sharing their expertise on panels and facilitating sessions. Read about some of our expert speakers below.

## Dr. Ali Nouri

### President, Federation of American Scientists

Dr. Ali Nouri is the President of the Federation of American Scientists where his primary focus is in the areas of science and technology capacity in Congress and addressing the COVID-19 pandemic. He previously served for 10 years as an advisor and a legislative director in the US Senate. Nouri is co-chair of the National Academies of Science, Engineering and Medicine's New Voices initiative; serves on the National Academy's Global Science Diplomacy Roundtable; and chairs the AAAS Science and Engineering Fellowship Advisory Committee. He holds a B.A. in Biology from Reed College and a Ph.D. in Molecular Biology from Princeton University.



cutting edge astronomy research accessible to a more general undergraduate audience, and has published other articles, such as in ORBITER and The Griffith Observer.

Briley's interest in zines began when she attended the NYC Feminist Zine Fest as an undergraduate at Columbia University. There she learned about the incredible possibilities of this accessible, radical medium, and soon after she began creating and using them as a form of science communication. She has tabled at multiple zine fests, such as the L.A. Zine Fest, Grid Zine Fest, and O.C. Zine Fest, runs an Etsy shop to distribute her work online at [astrobriles.etsy.com](https://astrobriles.etsy.com), and some of her zines can be found in libraries across the U.S.

## Dr. Deanna Montgomery

### Communication Lab Manager, MIT

Deanna Montgomery is the Communication Lab manager in the Electrical Engineering and Computer Science department at the Massachusetts Institute of Technology. She works with a team of graduate students and postdoctoral scholars to provide science communication training and coaching to students and researchers. Deanna holds a Ph.D. in medicinal chemistry from the University of Michigan where she synthesized novel opioids for potential treatment of cocaine addiction. She has dabbled in many forms of public engagement and communication, including writing for venues such as Chemical and Engineering News, the American Chemical Society's Graduate and Postdoctoral Chemist, and Nature Careers.

Deanna's love of theater and improv began during



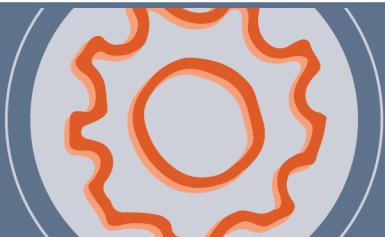
## Briley Lewis

### Graduate Student, Astronomy & Astrophysics, UCLA

Briley Lewis is a graduate student and National Science Foundation fellow in the Department of Physics and Astronomy at the

University of California, Los Angeles. She recently earned her M.S. in Astronomy & Astrophysics, and is now working towards her Ph.D. Her research interests are primarily in planetary systems – both planets around other stars and objects in our own solar system, how they form, and how we can create instruments to learn more about them. Outside of research, she is active in various forms of science communication and outreach, such as Letters to a Pre-Scientist, Skype a Scientist, and running the UCLA Planetarium. She is a regular author for Astrobites, which aims to make





# Panelists

childhood. She explored this interest further by acting in and directing high school plays and taking related classes in college. During graduate school, she discovered the connection between these skills and science communication. Deanna has taught communication skills to hundreds of STEM researchers through work with RELATE ([learntorelate.org](http://learntorelate.org)), the Communication Lab ([mitcommlab.mit.edu](http://mitcommlab.mit.edu)), and other activities.



## **Devi Lockwood** **Reporter, Rest of World**

Devi Lockwood is a reporter at Rest of World where she writes about international technology. Most recently she was part of the inaugural fellowship class at The

New York Times, where she worked as an editor and a writer in the Opinion section. Previously she traveled for five years in 20 countries on six continents to record 1,001 audio interviews on water and climate change. She is writing a book about this journey for Simon & Schuster (Tiller Press). Devi holds an M.S. in Science Writing from MIT and a B.A. in Folklore & Mythology from Harvard. She speaks Spanish fluently and studied Modern Standard Arabic for four years.

## **Dr. Dominique Brossard**

**Chair, Department of Life Sciences Communication, UW-Madison**

Dominique Brossard is a professor and chair of the Department of Life Sciences Communication and an affiliate of the Morgridge Institute for Research. Brossard's research agenda focuses on the intersection between science, media and policy. She is an internationally known expert in public opinion



dynamics related to controversial scientific issues and risk communication. She has published more than 100 research articles in outlets such as Science and Proceedings of the National Academy of Science, and has been an expert panelist for the National Academy of Sciences on various occasions.

[\[Twitter: @brossardd\]](https://twitter.com/brossardd)

## **Dr. Jaye Gardiner** **ComSciCon Leadership Team**

Jaye Gardiner received her Ph.D. in Cancer Biology in 2017 from the University of Wisconsin - Madison, where she studied how HIV effectively spreads between cells and how that infection changed the cells behaviors. Now she researches pancreatic cancer's tumor microenvironment, specifically focusing on how the non-tumor cells communicate to support the tumor. Outside of research, Jaye is involved in a variety of scicomm efforts to increase science access, exposure, and IDEA (inclusivity, diversity equity, and accessibility) predominantly through JKC Comics, Unique Scientists, and ComSciCon. You could say that in lab and out, Jaye is all about communication.



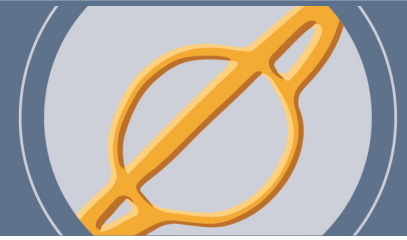
## **Dr. Jennifer McCreight** **Science Communication Program Manager, 23andMe**

Jennifer McCreight is the Science Communication Program Manager at 23andMe. In this role she oversees the outward communication of 23andMe research studies, develops educational resources about genetics, and manages their collegiate Genetics Club program. She earned her PhD in Genome Sciences from the University of Washington, where she studied the evolution of microRNA in primates and was a National Science Foundation





# Panelists



graduate research fellow. During her time at UW, Jennifer was the President of Women in Genome Sciences, a graduate student organization focused on improving the recruitment and retention of women in the field of genomics. In addition to her research endeavors, Jennifer also wrote a popular blog on skepticism for 6 years and has given more than 50 lectures on genetics and evolution for the general public.



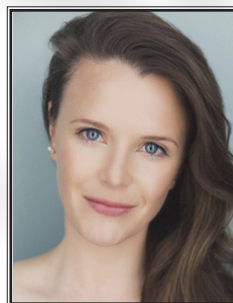
**Kassandra Ford**  
PhD Candidate, University of Louisiana at Lafayette

Kassandra Ford is a PhD Candidate at the University of Louisiana at Lafayette and a BOR-SREB Doctoral Fellow. Her research involves examining

the evolution of skull shape morphology in electric fishes from South America and Africa, and combines methods to analyze and quantify convergent evolution and functional morphology across multiple species and lineages. Kassandra obtained her B.S. in Genetics from the University of Wisconsin-Madison in 2015, where she was a Chancellor's Scholar. She is active within her community, along with being a member of the BlackAFinSTEM group. She recently helped co-organize the Black Birders Week on Twitter and was featured in multiple articles and livestreams.

**Dr. Liberty Vittert**  
Faculty, Washington University

Professor Liberty Vittert is a Visiting Scholar at Harvard University, on leave as a Professor of the Practice of Data Science at the Olin Business



School at the Washington University in St. Louis. She is an opinion editorial contributor for the Fox News Channel, and her pieces have been featured in Popular Science, US News, Newsweek, Business Insider, International Business Times, CBS News, MarketWatch, Boston Globe, and The Conversation. She has a weekly column on Fox Business titled "A Statistician's Guide to Life". As a Royal Statistical Society Ambassador, BBC Expert Woman, and an Elected Member of the International Statistical Institute, Liberty writes popular science books on data. She is also an Associate Editor for the Harvard Data Science Review and is on the board of USA for the UN Refugee Agency (UNHCR) as well at the HIVE, a UN Refugee Agency data initiative for refugees.



**Mary Poffenroth**  
Lecturer, San Jose State University

Whether through making original content for TEDed and Wiley & Sons, writing for Science & Forbes, or speaking to live audiences at TEDx & SXSW, Mary's goals are the same: Make

Science Accessible for All. Mary, a Salzburg Global Fellow and first generation college student, holds two masters degrees, one in biology and the other in science communication from Imperial College London. She is the author of Write Present Create: Science Communication for Undergraduates and has taught nearly 20,000 students both in person and online since 2007. Her work has been featured in legacy media outlets such as Time magazine and National Geographic as well as garnering views in the millions with YouTube's Mahalo. Mary began her research career in astrophysiology at NASA Ames Research Center



# Panelists

Moffet Field in 1999 and now focuses her research on the intersection of fear science, communication, and personal/social change as STEM faculty for San Jose State University.



## **Dr. Natalia Peart** **Clinical Psychologist**

Dr. Natalia Peart is a Clinical Psychologist, Career Reinvention Expert, and Fortune 1000 Executive Leadership Consultant. She has previously served as Staff Psychologist at Johns Hopkins, and as CEO of the Women's Center for Advancement. Dr. Peart completed her postdoctoral fellowship at Georgetown University, her clinical internship at Harvard Medical School/Boston Children's Hospital, received her PhD from the University of Maryland, College Park, and her B.A. with Honors from Brown University. and has served on the Federal Reserve Board 10th District. Dr. Peart is the author of "Future Proofed: The New Rules of Success in Work & Life for our Modern World."

## **Dr. Nic Boone** **Public Engagement and Outreach Fellow, University of Portsmouth**

Originally from Australia, I'm a vision impaired astronomer and a Public Engagement and Outreach Fellow at the University of Portsmouth's Institute of Cosmology and Gravitation in the UK. I currently lead the Tactile Universe public engagement project, which is developing free multi-sensory resources and activities to help blind and vision impaired people engage with current topics in astronomy research. I also help others both nationally



and internationally find ways to communicate their science in more accessible ways.

Though my main work focus is now on accessible science communication, my astronomy research background is in galaxy evolution and galaxy formation, specifically the study of large galaxy populations through the calculation and analysis of luminosity functions in different wavelengths.

**Twitter:** [@coffee\\_samurai](https://twitter.com/coffee_samurai)

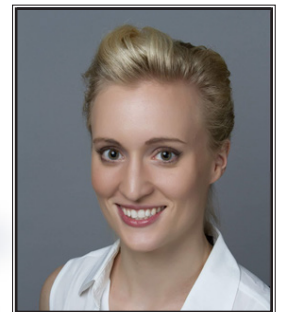
**Tactile universe:** [@tactileuniverse](https://www.tactileuniverse.org)

[www.tactileuniverse.org](https://www.tactileuniverse.org)

## **Dr. Paige Jarreau** **Science Communication Specialist, Louisiana State University**

Paige is a long-time science communicator and science blogger. She is the co-founder of Lifeology.io, a platform that brings together scientists and artists to make science more accessible, and has studied how scientists use social media and how scientist selfies on Instagram can improve public trust.

**Twitter:** [@fromthelabblench](https://twitter.com/fromthelabblench)



## **Ralph Bouquet** **Director of Education and Outreach, PBS NOVA**

Ralph Bouquet is the Director of Education and Outreach for NOVA, the PBS science documentary series produced by WGBH in Boston. At NOVA, Ralph's team supports science educators through the creation of free STEM classroom resources



# Panelists

distributed through PBS LearningMedia and engages new audiences for NOVA's broadcast and digital content through science communication events and outreach campaigns across the country. Before NOVA, Ralph taught high school biology and chemistry in Philadelphia and then worked in ed-tech at a Boston-based startup. Ralph received his B.A. in psychology from Harvard University and studied secondary science methods while completing his M.Ed. at UPenn.

**Twitter:** [@rlbouquet](https://twitter.com/rlbouquet)



## **Dr. Reyhaneh Maktoufi** **Rita Allen Foundation Civic Science Fellow, WGBH/NOVA**

Reyhaneh Maktoufi (Ph.D.) is Rita Allen Foundation Civic Science Fellow at WGBH/NOVA. Her main fields of interest are science communication,

misinformation, curiosity, public engagement with scientists, and science communication in media. She was a visiting researcher at the Adler Planetarium, where she studied science communication and facilitated workshops on communication skills and she's also a producer at The Story Collider podcast. Before starting a Ph.D., Rey has been working as a health communication facilitator and cancer preventive/palliative care campaign manager in Tehran, Iran. Rey currently enjoys working with different nonprofits such as the Communicating Science Conference (ComSciCon). She also engages in science outreach through writing blog-posts and making science comics and has been interviewed on outlets such as the Smithsonian Magazine and the SETI Institute's podcast Big Picture Science.



## **Rhiannon Kirton** **Graduate Student, Western University**

I have a BSc in Zoology from The University of Manchester, England. I'm now studying the spatial ecology of white-tailed deer and their interactions with

hunters in Oklahoma as a graduate student at Western University. I grew up in rural England and Australia, and am very aware of the lack of representation and visibility for BIPOC individuals in the outdoors both recreating and in professional spheres. Having worked as an intern for MFLNRO in BC and for NGO American Prairie Reserve in Montana, I have been lucky to experience so many unique opportunities. My hope is that the next generation of Black naturalists and scientists don't have to feel like the only one in the room.

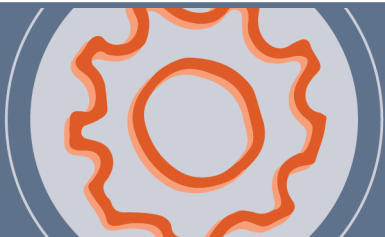
## **Dr. Samantha Yammine** **Founder, Science Sam Media**

Dr. Samantha Yammine, PhD is a Neuroscientist, Science Communicator, and Founder of Science Sam Media. She earned her PhD from the University of Toronto researching how stem cells build and maintain the brain. In addition to her doctoral research, she co-authored a crowd-funded research study exploring the effects that #ScientistsWhoSelfie on Instagram can have on public perceptions of scientists.

Samantha regularly appears as a guest expert in the popular media including spots on Netflix, TVO Kids, CBC GEM, LBC Radio UK, AsapSCIENCE, and CBC Radio. You can find her on Twitter [@heysciencesam](https://twitter.com/heysciencesam) & Instagram [@science.sam](https://www.instagram.com/science.sam). Learn more or get in touch at [samanthayammine.com](https://samanthayammine.com).







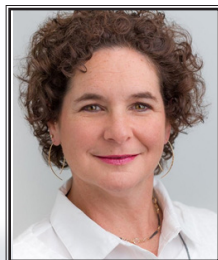
# Panelists

**Twitter:** [@heysciencesam](https://twitter.com/heysciencesam)

## **Dr. Stacy Feiner**

**CEO, Psynamics**

Dr. Stacy Feiner is the CEO of Psynamics, and a nationally recognized business psychologist, who has helped Private-companies, Fortune 500 corporations, and academic institutions overcome challenges and reach their goals faster than they ever thought possible. She solves the invisible dynamics in businesses to increase the bottom line. Initially drawn to the complex and intimate work with family systems, Dr. Feiner eventually found that her real passion was to bring psychology to business systems where she would have a bigger impact on improving the human condition. By now Dr. Feiner has listened to thousands of business owners talk about their deeply personal experiences owning and running companies. Her approach improves complex dynamics within owner-operated companies, family businesses, management teams, and boards. Dr. Feiner's work ensures that the worthy ideals and missions of others are not abandoned but realized. She publishes in business journals like Forbes and Business Week, as well as research journals such as, International Journal of Group Psychotherapy. Her first book is Talent Mindset: The Business Owner's Guide to Building Bench Strength.



Microbiology. In 2001, Dr. Marriott founded BioScience Writers, LLC (BSW), an award-winning company that provides professional editing and writing services, as well as training in scientific writing, to the global scientific community. She enjoys having an impact on science and health directly through her own research and indirectly by supporting scientists around the world who benefit from the services that BioScience Writers provides.

## **Xiaofei (Fay) Lin**

**PhD Candidate, UCLA**

I am finishing my 4th year as a PhD candidate in Biochemistry at UCLA. My research constructs math models to investigate how our immune system is able to distinguish different health threats. In addition to being a researcher, I am an active mental health advocate who has partnered with platforms, such as PhD Balance and Chemistry & Engineering (C&EN) News, to organize video chats, written articles, and panel discussions about graduate student wellness. The core of my activism lies on social media. My Twitter platform advocates for inclusion, diversity, and mentorship in graduate education, as well as describes my experiences as a woman in computational biology.



**Twitter:** [@xiaofei\\_lin](https://twitter.com/xiaofei_lin)

## **Dr. Susan Marriott**

**Faculty, Baylor College of Medicine**

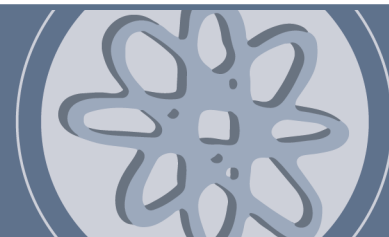
Following a postdoctoral fellowship at the National Institutes of Health studying human retroviruses, Dr. Marriott joined the faculty at

Baylor College of Medicine where she is currently a Professor in the Department of Molecular Virology and





# Special Sessions



During each annual ComSciCon workshop, attendees not only hear from our expert invited speakers, but also participate in a number of unique, hands-on workshops to learn new skills in science communication.

## SciComm in the Era of COVID-19 Panel

This year's ComSciCon flagship Workshop took place amidst the Covid-19 pandemic, and during a time of increased attention on racism and policing in the United States. Science communication plays a key role in addressing both of these issues. But communicating science that is happening in real time can be extremely difficult, and our jobs are complicated even further by the proliferation of misinformation and conspiracy theories. To help us rise to the challenge, we assembled a panel of experts on various aspects of science communication, education, outreach, and policy: Ralph Bouquet (Director of Education and Outreach, NOVA at WGBH), Dominique Brossard (Professor & Chair of the UW Madison Dept of Life Sciences Communication), Ali Nouri (President of the Federation of American Scientists), and Samantha Yammine (Neuroscientist, Science Communicator, and Digital Media Producer). Our discussion included examining why people might be susceptible to misinformation, and panelists shared helpful strategies for communicating uncertainty. One of the major takeaways was the importance of building trust with specific audiences and empowering them to find reliable information on their own. But importantly, panelists stressed the necessity of understanding the systemic issues that lead to mistrust of science and poor digital literacy in the first place. Overall, this panel was a great way to begin the workshop, and really highlighted the importance of the work we do and put it in context.

## Empathy Workshop

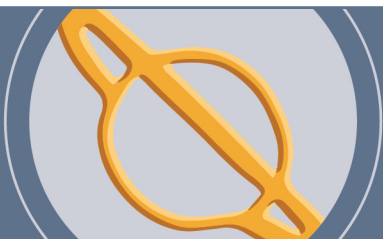
This session was a 1-hour workshop facilitated by Reyhaneh Maktoufi, in which students discuss empathetic communication skills, practice those skills,



and see examples of such modes of communication in media. Students became familiar with and practiced the 5 principles of empathetic science communication: listening, observing, relating, replacing, and reaching out. This workshop was well received and inspired further discussions as one attendee mentions in a blog-post: "This workshop made me realize that I am not immune to subjectivity, and often forget to empathize when speaking with people who carry different opinions. Now, more cognizant of my snap judgments, I practice "complicating the narrative" when faced with conflicting ideas."

## Theater Workshop

While science communication most notably involves explaining a scientific topic to a non-expert audience, another key element is confidently answering unknown audience questions. The same can also be said of scientific presentations within one's field. Adapted to our online format, scicomm trainer Dr. Deanna Montgomery led attendees in an interactive activity where each participant took turns becoming an instant "expert" to a discipline made up by their group mates (e.g. Newtonian book slime propulsion) and was responsible for answering any question



# Special Sessions

fielded their way. Following the activity, group discussion dissected the nature of the questions received and how this knowledge can be translated to benefit their graduate careers.

## IDEA Panel

The IDEA panel at ComSciCon 2020 included a diverse set of individuals from the United States, Canada, and the United Kingdom who represented the pillars of IDEA (Inclusivity, Diversity, Equality, and Accessibility). We sought to include a diverse set of panelists representing the pillars of IDEA (Inclusivity, Diversity, Equality, and Accessibility). The panelists included Cassandra Ford, Rhiannon Kirton, Fay Lin, and Dr. Nic Boone. ComSciCon 2020 occurred shortly after the killing of George Floyd, therefore much of the conversation was focused on race and science communication. Ford and Kirton, who helped found Black Birder's Week, provided excellent insight into how to be a better ally, memorably stating that we all have to "make a stink" in order to make a change. Lin is an advocate for mental health and promoting diversity within graduate programs. She discussed the intersection of mental health and science communication and emphasized getting involved with administration at the University level to force the issue of mental health to be addressed. Dr. Boone specifically addressed issues of accessibility within STEM and science communication. Dr. Boone creates content for those who are visually impaired and on the panel he discussed how the vertical events during COVID-19 could be more accessible. All questions for this session were asked via the Zoom Chat or through an anonymous Google Form, particularly given the sensitive topics addressed during this panel. Overall, the panel was timely, informative and touched on many of the issues we as a society are dealing with in the midst of Black Lives Matter protests and COVID-19.



## Storytelling with Data Workshop

This one-hour workshop was centered on how to consciously create and deploy visualizations that accurately convey the meaning and importance of scientific results and how to use those visualizations to serve a compelling narrative. Since our attendees will pursue various career paths and present their science to many different audiences, we intended this session to provide broad principles and practices that could be applied to all kinds of data for many different audiences and situations. This session was facilitated by Dr. Liberty Vittert, an expert statistician and science communicator, whose presentation was strengthened by frequent, focused use of the Zoom chat feature to shape and redirect the discussion according to the needs and interests of attendees. The presentation featured examples of effective and ineffective data-based storytelling, and attendees discussed how to tailor the effective principles to their specific data stories.

## SciComm Jobs, Work-Life Balance, and Mental Health Panel

This panel session at ComSciCon 2020 had a combination of experts working science communication jobs (Dr. Susan Marriott, BioScience Writers; Dr. Jennifer McCreight, 23andme; Dr. Paige

# Special Sessions



Jarreau, Lifeology) and business psychologists (Dr. Natalia Peart and Dr. Stacy Feiner). The intent of this panel was to discuss how companies' hiring patterns have changed and how the science communication industry has been affected by the pandemic. The discussion with these experts was motivating as they stressed that science communication jobs are in demand more than ever. Dr. McCreight also offered to help students land internships if anyone was interested. Dr. Marriott pointed everyone to ads from her own company which regularly hires science writers and was doing so actively even during the pandemic. Finally, a new avenue of exploring the artistic side of science communication opened as Dr. Paige spoke of her experiences that led her to start lifeology, a sciart company. Overall, the panel was informative and a perfect networking opportunity for many seeking scicomm jobs in industry.

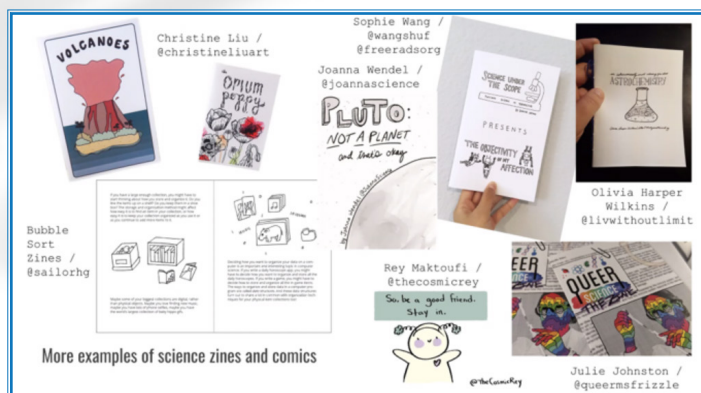
## Creative Writing Workshop

For this year's flagship conference, we were thrilled to include a workshop on the intersection of science communication and creative writing. Leading this workshop was Devi Lockwood, a reporter who has worked at Rest of World and the New York Times and who is also an accomplished creative writer who has published poetry and prose in a variety of national outlets. The focus of this workshop was on exploring how science communicators can draw on the tools of creative writing to make content that is more engaging and emotionally resonant. Devi began by exploring a variety of different forms of creative writing and attendees had an opportunity to reflect on them and discuss how language was being used and constructed, and how creative writing tools like metaphor, syntax and diction can be used to great effect even in more formal writing and reporting about science. One particular tool Devi focused on specifically was language construction around verbs, and how more deliberate verb choice can improve the

specificity of writing. Attendees really seemed to enjoy the workshop based on the many questions asked of Devi at the conclusion of the workshop—and one attendee was even inspired to write a poem!

## Zine Workshop

This session was a one hour workshop facilitated by Briley Lewis, Jaye Gardiner, and Reyhaneh Maktoufi. We focused on how to use zines (self-published, independent print works) for science communication, utilizing principles of storytelling along with comics and images. Zines are a unique format because they are inexpensive, easy to reproduce and distribute, and very flexible with room for creativity. Comics within them can show the faces behind the science, increasing representation and broadening the "portrait" of a scientist, and images can be more engaging than just text. This workshop culminated with time for participants to create their own one page mini-zine about their research, based on a storyboarding worksheet they filled out prior to the workshop. The zines created in our short time together were creative, funny, and engaging, and illuminated a different way for folks to engage with science communication. Participants remarked that this was not something they had heard of before the workshop, but they were excited to try something new and learn about this unique way to bring together science communication and creative expression.





# Write-a-Thon



One of the hallmark events of any ComSciCon event is the Write-a-Thon, wherein attendees produce an original piece of science writing (be it an article, opinion piece, podcast/video script, comic, etc) and receive feedback from their peers and our invited experts. This exercise is intended to give attendees hands-on practice with distilling a complex scientific concept into an engaging and digestible form for their chosen audience. With the help of ComSciCon organizers many attendees are seeking to or already have published their work in nationally-renowned outlets.

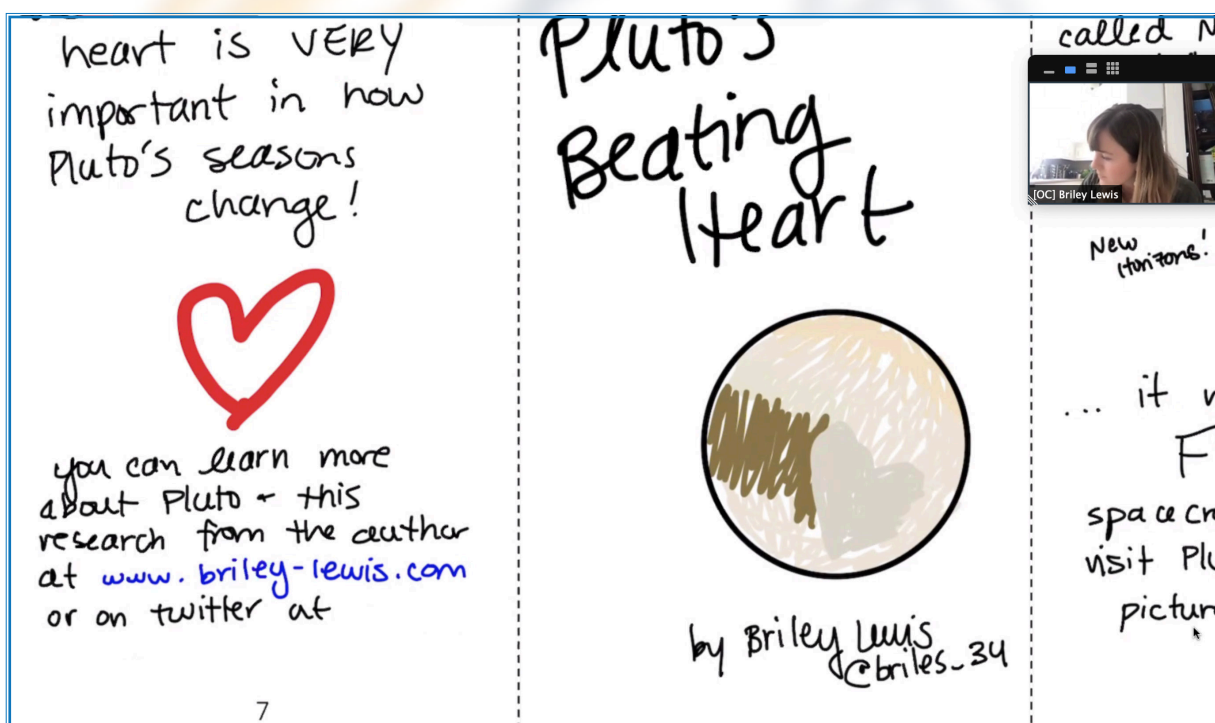
## Write-a-thon Expert review

As an integral part of the ComSciCon program, each attendee produced an original piece of science writing or multimedia during the workshop. Despite the challenges presented by the pandemic, the response was overwhelming with most attendees successfully completing their pieces and submitting it for review. Attendees were given options to write for a specific publication outlet of their choice (list was provided) or write a creative piece. Most attendees wrote science articles for a general audience. The breakout room option in Zoom was a great idea to facilitate the write-a-thon expert review session. The expert reviewers

were from all over the US unlike usual and it was a great session overall. Post session, many reviewers let us know that they enjoyed the experience and wanted to be involved in coming years. Many of the attendees are now in the process of getting their pieces published. A list of published attendee pieces is maintained on the ComSciCon website.

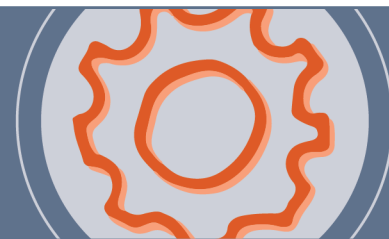
## Write-a-Thon Publications Summary

This year, ComSciCon formed an exciting partnership with [Natural History Magazine](#) to create a special print issue full of ComSciCon attendee pieces. Attendees worked with NH editor-in-chief Vittorio





# Write-a-Thon

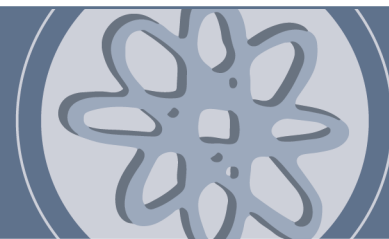


Maestro to populate the special issue. The magazine features four attendee pieces from the 2020 Flagship conference, in addition to two pieces sourced from previous flagship and chapter workshops, and it will arrive in subscriber mailboxes in September 2020. The articles are as follows:

- Hartman, J. "Forbidden Fruit?" Natural History Magazine, vol. 128, no. 8, Sep 2020, pp. 20-21.
- (Cover story) Brokaw, A. "Going to Bat for Bats." Natural History Magazine vol. 128, no. 8, Sep 2020, pp. 22-25.
- Sesin, V. "Cattail Tale." Natural History Magazine, vol. 128, no. 8, Sep 2020, pp. 26-29.
- Nikoai-Yogerst, A. "A Vital Balance." Natural History Magazine, vol. 128, no. 8, Sep 2020, pp. 30-32.
- Akbaba, D. "Visualizing Uncertainty." Natural History Magazine, vol. 128, no. 8, Sep 2020, pp. 33-36.
- Hamilton, S. "When Outreach Becomes a Priority." Natural History Magazine, vol. 128, no. 8, Sep 2020, pp. 37-39.

In addition to the printed issue of Natural History magazine, as of this writing a number of our 2020 attendees have already published their work online:

- Schultz K. [Fail Better](#). PASSIOINVENTA [Internet]. 2020. [\[Publisher's Version\]](#)
- Jones A. [Rich bird, poor bird: urban street trees support native birds across a socioeconomic gradient](#). Envirobites [Internet]. 2020. [\[Publisher's Version\]](#)
- Fathi P. [ComSciCon: the virtual experience](#). Illinois Grainger College of Engineering News [Internet]. 2020 [\[Publisher's Version\]](#)
- Dundon M. [Ice, heat, science, and acting](#). The Journal of Stories in Science [Internet]. 2020. [\[Publisher's Version\]](#)
- Chu H, Sankovitz M. [Our experience at ComSciCon: the perspectives of two entomology Ph.D. students](#). SciComm @ UCR [Internet]. 2020. [\[Publisher's Version\]](#)
- Sahtout, Naheda. [How science should support researchers with visual impairments](#). Nature. 2020.
- Bastien-Olivera, Bernardo. [Beyond tacos, or why naming matters for sustainability in climate economics](#). Nature Sustainability. 2020.



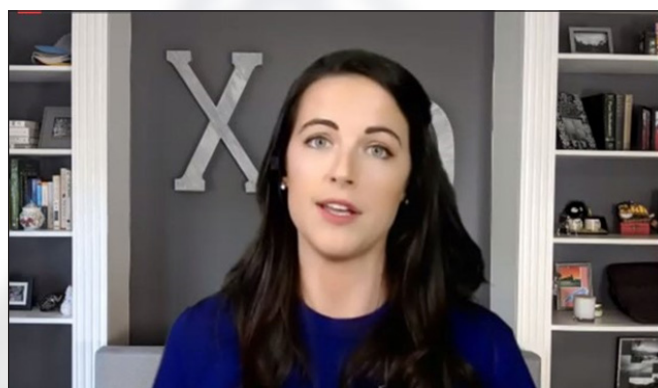
# Franchises



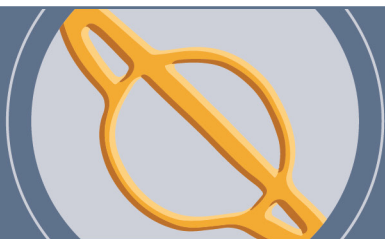
## ComSciCon Michigan

Michigan ComSciCon-MI 2020 was the third installment of ComSciCon in the Michigan region, hosted from August 22nd-23rd. This year was particularly challenging as we navigated leading a workshop during a global pandemic, and grappled with what that means for science communication and training. Because of this, we made the decision to hold an online conference via Zoom. This allowed us not only to recruit speakers from many locations and career stages, but also allowed us to open up the conference to a wider participant base, having participants from as far as Puerto Rico and Vancouver! We had 104 applicants for 60 spots this year, with attendees originating from New York to Illinois. Participants represented a wide range of science communication experience (with 63% having fewer than three years). During the weekend, they heard from panelists on two panels, one about careers in science communication and another about balancing science communication with other responsibilities. They also attended breakout sessions intended to give hands-on experiences, first in an intro session called "half Life Your Science", then in others on creating educational modules, data visualization, journalism and

feature writing, inclusivity resources, navigating difficult conversations, and pitching a piece. Our keynote lecture was by Dr. Susanna L Harris (@SusannaLHarris), called "When is the Right Time to Start?" that is still available on Youtube here: <https://www.youtube.com/watch?v=j4ngrkCXRuU&t=8s>.



A big focus for ComSciCon-MI 2020 was on attention to Inclusion, Diversity, Equity, and Accessibility (IDEA), and maintaining these standards in an online environment. To start, our application review process reserved 10 spots to maximize diversity. For these spots, we additionally considered factors such as ethnicity, gender, or citizenship. Furthermore, we considered the applicant's university in an effort to



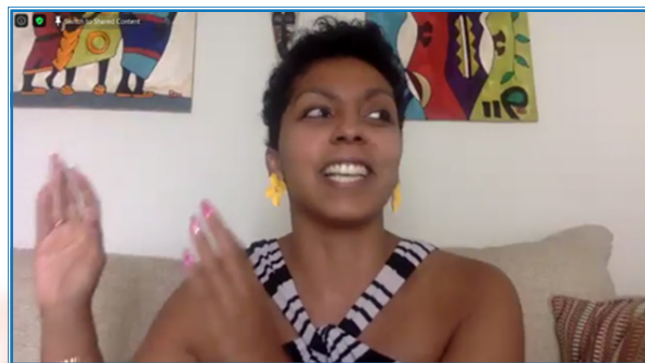
# Franchises

bring science communication training to smaller schools. Leading up to and at the conference itself, we implemented a number of measures to ensure our event was as inclusive as possible. There is always room for improvement, but we are extremely proud of the steps we took to create a safe, welcoming, and inclusive environment. These included:

- Indigenous land acknowledgment, including resources for others to research the land they are on
- Commitment to increase the diversity of panelists and breakout leaders
- Use of a live transcript at all times
- Alternative captions for all images in slides, materials, and social media posts
- Encouragement to edit pronouns in Zoom name
- Color-blind-friendly figures
- Use of off-white backgrounds for slides
- Limit of all sessions to one hour with numerous breaks

Keynote:

<https://www.youtube.com/watch?v=j4ngrkCXRxU&t=8s&authuser=3>



## ComSciCon Atlanta

ComSciCon-Atlanta was proud to have hosted 50 attendees around the Southeast and one of the only chapters to have served Puerto Rico. Our event was held the 12th and 13th of March, right before universities were forced into lockdown. With this challenge, our chapter had to convert our in-person event to a hybrid event. Students residing outside of Georgia attended virtually while Georgia-based students (if healthy and comfortable) attended in-person. We hosted three panels introducing attendees to SciComm outlets, public outreach, and science policy. In addition to the panels, we wanted attendees to leave with practical skills such as using Adobe Illustrator as a tool for data visualization, and social media as a tool to share our science. The Adobe Illustrator workshop was by far the most successful and accessible to both in-person and virtual attendees. Our data viz expert led the workshop virtually, so in-person attendees followed along on their computers as the expert was broadcast in the room, and virtual attendees were able to participate remotely. Although our event was far from perfect with only two days to transition to a hybrid event, we still managed to deliver a technical workshop and build friendships through it all.





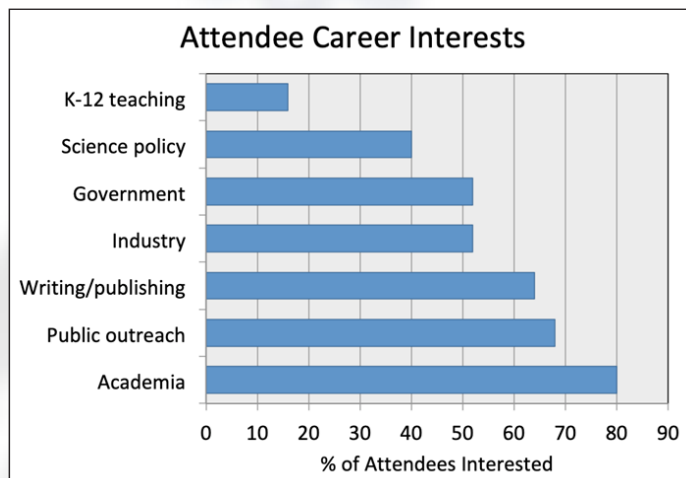
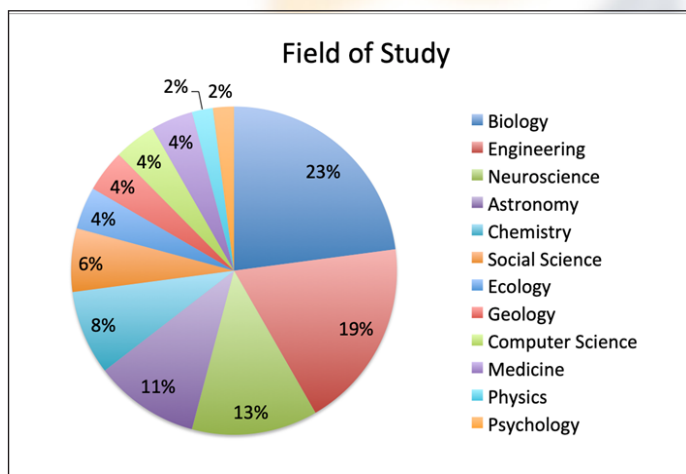
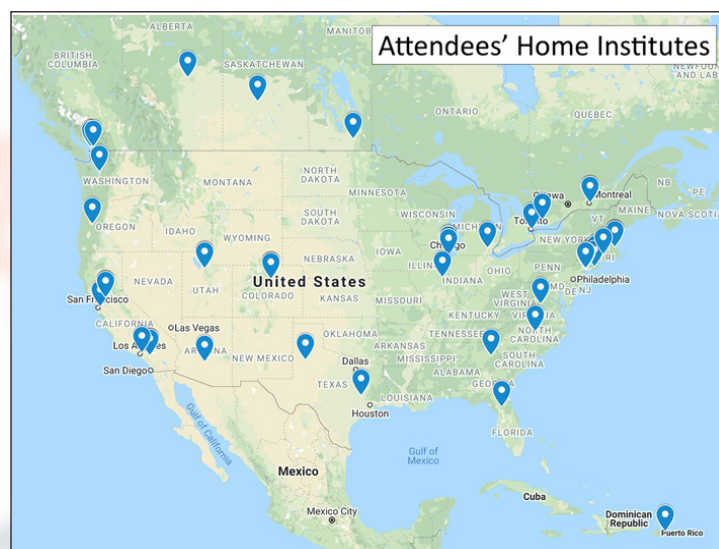
# Evaluation

To better understand our attendees' experiences at the ComSciCon 2020 flagship event, we surveyed, we surveyed participants after the workshop. The attendee survey responses are used to evaluate who attends ComSciCon and what effects — both short-term and long-term — the workshop has on them.

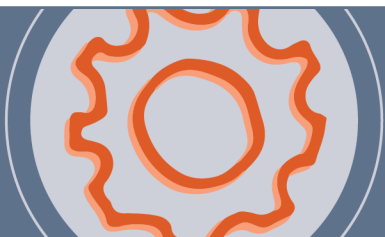
## Attendees' Backgrounds and Career Interests

ComSciCon 2020 attendees came from various stages in their graduate career, a wide range of fields of study, and home institutes from across the nation. Attendees' future career interests also spanned a broad range of possibilities.

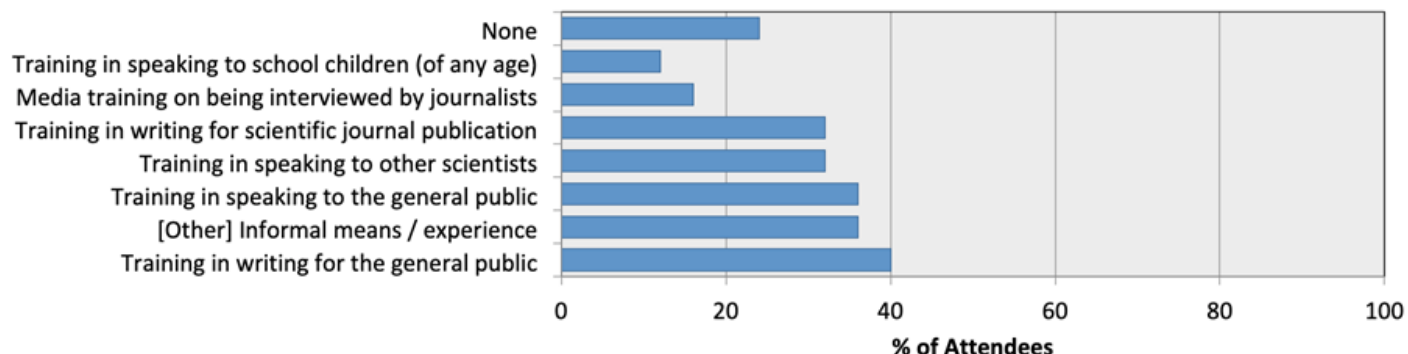
Nearly 50% of survey respondents among ComSciCon 2020 attendees indicated that they had received no prior formal training in communicating with people other than scientists, and 25% reported no prior formal training at all. This dramatically underscores the need for programs such as ComSciCon. As ComSciCon attendees are selected for their exemplary science communication experience, we can expect even lower exposure to science communication training among the general graduate-student population.







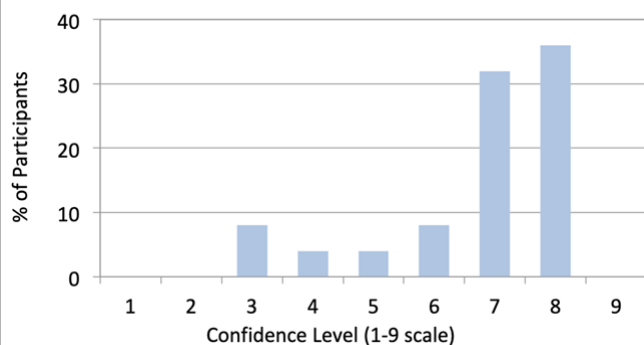
### Attendee Prior Science Communication Training



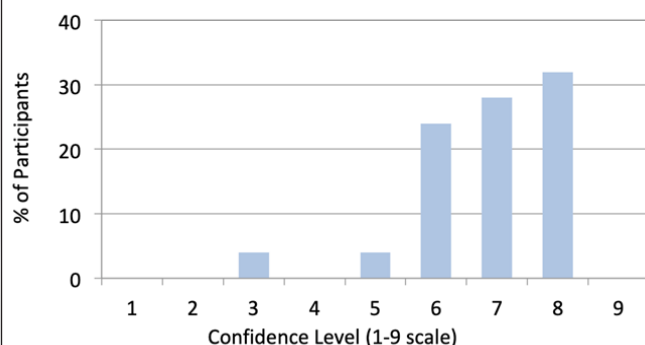
### Impacts of ComSciCon 2020

Due to the unusual circumstances of this year's virtual workshop during a global pandemic, we did not study attendees before and after ComSciCon to systematically gauge impacts of the workshop as we do most years. Instead, we asked participants to report confidence levels in a variety of categories after attending ComSciCon 2020, and we relied on testimonials (see page 6) to speak to the impact of the workshop.

#### Participants' confidence in their ability to communicate with the public



#### Participants' confidence in their ability to communicate with scientists





# Sponsors

## Thank you to our sponsors!

We want to thank each and every one of our sponsors for ComSciCon 2020. We couldn't have made CSC20 happen without their generous support. Thank you!

If you would like to add your support for future ComSciCon workshops and events, then please visit our [donate page](#). Any and all of your gifts are appreciated.



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