

ComSciCon15



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

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Letter from the Organizing Committee

Dear ComSciCon supporters,

For the third consecutive year, we are celebrating continued growth of the ComSciCon community and evolution of our programming. We are grateful to all of ComSciCon's participants and supporters for enabling and propelling our organization to this success, and pleased to report on these milestones here.

Our national workshop this June set a new record for applicants to our annual flagship event, with 970 graduate students vying for just 50 spots. This continued growth in applications demonstrates the robust demand for professional development opportunities in communication among young scientists, even as our alumni community of graduate students already served by ComSciCon workshops rushes past 300.

This year, our Organizing Committee of 21 graduate students from Harvard, MIT, and around the country made substantial innovations to the time-tested ComSciCon workshop formula. In collaboration with the American Chemical Society, we launched a new *mock interview* session to actively prepare our participants to interact with the media. Our new *pitch slam* format gave attendees the experience of making a case for science in a high-stakes environment. In an expanded K12 session, our graduate student attendees developed 18 original lesson plans, and revised them together with invited educators.

In addition to our third annual flagship national conference, this year marked the launch of our franchising initiative to bring regional and specialized *ComSciCon-local* workshops to graduate students around the country. We held four such events in 2015, each organized by alumni of the ComSciCon program operating independently of our National Organizing Committee. ComSciCon15 attendees are already at work organizing additional events to be held next year.

We particularly wish to thank our primary sponsors at Harvard University and MIT, and our collaborating sponsors at the University of Colorado Boulder, the AAAS / Science Careers, American Astronomical Society, the American Chemical Society, and Microsoft Research for their continued support, without which ComSciCon would not be possible.

With sincere thanks and appreciation,

Nathan Sanders and Shannon Morey
Local Organizing Committee co-Chairs

Maria Drout
Program Organizing Committee Chair

Chris Faesi
ComSciCon National Organizing Committee Chair

on behalf of the entire ComSciCon National Organizing Committee
October 12, 2015

ComSciCon15

Executive Summary

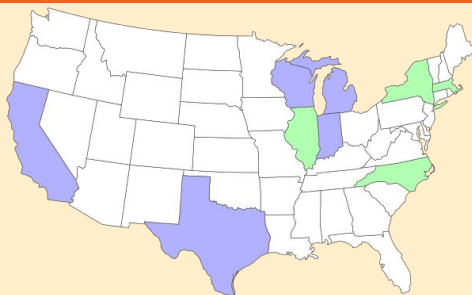
ComSciCon is a workshop series organized by graduate students, for graduate students, focused on leadership in science communication. Our goal is to empower young scientists to share the results from research in their field with broad and diverse audiences. ComSciCon15 is our third annual national workshop, bringing together 50 exceptional graduate students selected from nearly 1000 applicants nationwide.

ComSciCon 2015 Highlights

Workshops

This Fall, we are not only celebrating the success of the ComSciCon15 national workshop,

but also the successful launch of our second, third, and fourth regional workshop series in North Carolina, upstate New York, and Chicago. As we work to sustain these programs, ComSciCon15 alumni are organizing an additional five regional and specialized workshops at locations across the country with support from the National Organizing committee.



Partnerships & recognition

The national profile of ComSciCon continues to grow. Our application received more submissions than ever this year, with more than 970 graduate students vying for just 50 attendee slots. ComSciCon15 was made possible by our broadest-ever coalition of supporters, including new professional society sponsors AAAS / Science Careers, AAS, and ACS. In addition, dozens of

other universities and sponsoring institutions supported ComSciCon-local events in 2015.



Graduate student attendees

As vibrant, accomplished, and diverse as any group of ComSciCon attendees to date, the 50 graduate students who joined us for ComSciCon15 are leading researchers, student organizers, bloggers, journalists, educators, and more.



Invited experts

25 leading science communicators from around the country, representing diverse professions and practice domains, shared their time with our participants at ComSciCon15. They shared their advice and experiences in panel discussions, offered 1:1 guidance and feedback as expert reviewers at our write-a-thon, and facilitated our special sessions. We report on five of our most exceptional invited experts in these pages.



ComSciCon15 Highlights

Write-a-thon & publications

Before they even arrived in Cambridge, ComSciCon attendees worked together to draft, edit, and revise original compositions of science writing, audio, and visual communication. In the few months since the workshop, attendees have already had fourteen pieces accepted or published in outlets like Scientific American Mind and Nature's SciTable website.



Special sessions

Two new additions to our program made a big splash this year, a **mock interview** session where attendees sat down with seasoned science journalists like Nancy Shute (NPR) to practice interacting with the media, and a **pitch slam** where attendees practiced condensing



research topics into brief pitches for experienced writers and editors.

Organizing Committee

More than 20 graduate students from Harvard, MIT, CU Boulder, and other universities around the country volunteered their time to make ComSciCon15 possible. Fully half of these students are alumni of past ComSciCon programs.



Poster session

At our high-tech interactive poster session, 20 selected graduate student attendees used high-def



electronic posterboards to describe and promote the science communication initiatives they lead at their home institutions around the country, from personal blogs to public live event series to school outreach programs. A first, an organization founded at a previous ComSciCon event ([Oceanbites](#)) joined us as a special guest to help propagate their model for collaborative graduate student-led science writing.

K12 session

Expanding on this innovation from our 2014 program, all ComSciCon15 graduate student attendees drafted original pieces of science writing about their field of research aimed at K12 audiences. The students partnered with teachers and other K12 educators at the workshop to transform these pieces into full-fledged, standards-aligned, classroom-ready lesson plans to be featured on our new BiteScis website this Fall.



Longitudinal impacts

Even just two years out from our first national workshop, ComSciCon participants have started realizing and reporting long term impacts of their engagement with our program. We report on ComSciCon attendees and organizers who have aggressively integrated writing and communication into

their professional activities as researchers, who have found success in media and communication careers, and more.



Participant Profiles

ComSciCon15 convened 50 graduate students from around the country. Our attendees had a wide variety of interests and expertise, and all have shown a boundless interest in science communication and have proven themselves to be leaders in their own communities. Here we profile a small selection of our participants.

Anahita Zare
Chemistry at
University of Missouri

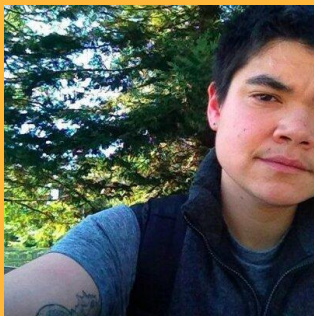


Anahita, a Ph.D. student researching biophysical spectroscopy and the 2015 American Chemical Society (ACS) ComSciCon Fellow, is the leader of no fewer than four public outreach programs and science communication student organizations in Colombia. She is now working to organize a special ComSciCon workshop tailored to chemists.

Steven Pan
Psychology at
UC San Diego



A Ph.D. student in cognitive neuroscience studying learning and memory, Steven wrote about the amplifying effect of practicing multiple related concepts during the ComSciCon Write-a-thon. His piece "The Interleaving Effect" was published in *Scientific American Mind* and translated for international distribution. Steven reflected that ComSciCon "has transformed how I approach science writing for the public."



Shayle Matsuda
Marine Biology at
San Francisco State U.

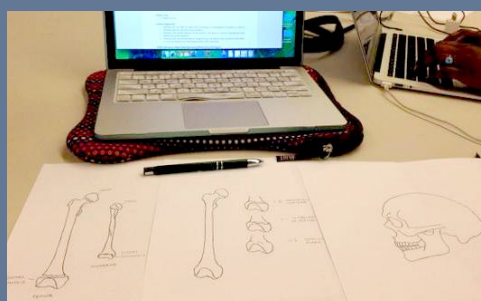
Shayle is a researcher in marine biodiversity and climate change impacts. He presented his work as host of the interactive happy hour series *Science, Neat* in San Francisco at the ComSciCon poster session. His exquisitely detailed session notes, composed as variegated quotes, drawings, and doodles, captivated attendees on Twitter throughout the workshop.



Katy Meyers Emery
Anthropology at
Michigan State University



Katy is a mortuary archaeology researcher and highly accomplished blogger. She is the co-founder of the guidance clearinghouse *GradHacker*, and author of the anthropology blog *Bones Don't Lie*. Her painstakingly drawn, inimitably comprehensible, skeletal diagrams formed the basis of her ComSciCon K12 lesson plan about human bones.

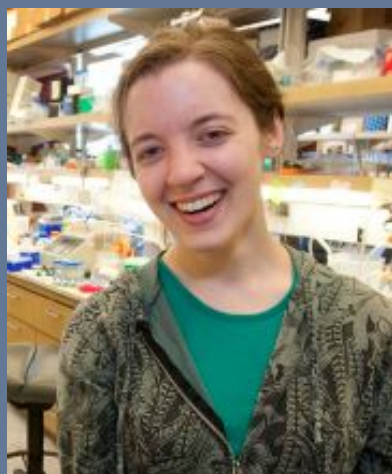


Selection process

Read more about how we selected these graduate students from nearly 1000 applicants nationwide [on our website](#):



Molly Gasperini
Biology at
University of Washington



Molly's research focuses on genome editing technologies. Her ComSciCon write-a-thon piece *What is a genome anyways?* was published on the *Nature Scitable* blog *ConferenceCast*. A former Outreach Coordinator at the *Journal of Emerging Investigators*, Molly is joining ComSciCon for a special session this November to expand her work on her K12 lesson plan about genetic inheritance.

ConferenceCast

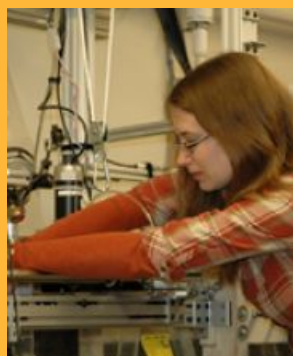
Your place in the crowd

July 28, 2015 | By: Gary McDowell

What is a Genome Anyways? - From ComSciCon

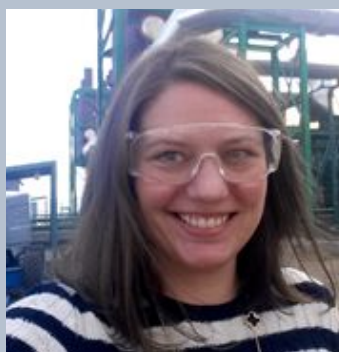
ComSciCon is a workshop series organized by graduate students, for graduate students, focused on science communication. This is the second in a series of posts which showcases talent from the ComSciCon 2015, the national meeting in Boulder, CO. You can find more details about the meeting [here](#). We hope this can give an example of actual output that can come from the workshop.

Kelsey Lucas
Biomechanics at
Harvard University



Kelsey studies fish locomotion, drawing on physiology, neuroscience, and engineering. In the summer of 2015, in addition to attending ComSciCon, she interned with *HarvardX* to bring cutting-edge course content from the university to the world.

Kristen Brown
Mechanical Engineering at
CU Boulder



Kristen's research focuses on the environmental implications of emissions fees policies. As an *NSF GK-12 Fellow*, Kristen designed and published peer-reviewed middle school science curriculum focusing on energy and air quality. She recorded both a *pop talk* and *mock interview* at ComSciCon.

Laura Vican
Astrophysics at
UCLA

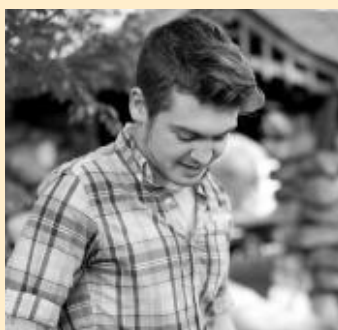


Laura Vican ComSciCon pop talk

Laura's research focuses on infrared studies of stellar debris disks. She is coordinator of *Astronomy Live!* at UCLA and founder of the online community *SciCommHub*. Her one-minute

research *pop talk* recorded at ComSciCon can be viewed on YouTube.

Cael Barry
climate & physical oceanography at
MIT



An applied mathematician by training, Cael is now studying Arctic melt ponds at MIT & Woods Hole. At MIT, Cael organized mini courses on climate for the general public, and is extending the program off campus. Following ComSciCon15, he joined the staff of Oceanbites.

Speaker Profiles

ComSciCon15 had 25 amazing expert panelists and session facilitators with a diversity of backgrounds and experiences, including:



Pallavi Phartiyal
Union of Concerned Scientists

Pallavi Phartiyal is a senior analyst and the program manager for the Center for Science and Democracy at the Union of Concerned Scientists. Dr. Phartiyal is a molecular biologist by training and works at the nexus of science and policy. She advocates for linking science and technology to society and for science-based decision making in the democratic system.



Kalliopi Monoyios
Science Illustrator

Kalliopi Monoyios began her career in visual science communication with 12 -years as the scientific illustrator in a paleontology lab at the University of Chicago, learning to communicate complex science concepts to diverse audiences from scientists to children and illustrating three books. Through her science-inspired sculptures and Scientific American blog Symbiartic, she is focusing her efforts on raising the profile of science-art as a broadly accessible and palatable way to dish up science to the unsuspecting masses.



Cornelia Dean
Brown University
New York Times

Cornelia Dean is a Distinguished Lecturer and Writer in Residence at Brown University and a science writer and former science editor of The New York Times. Her books include "Against the Tide: The Battle for America's Beaches" and a guide for researchers on communicating with the public, "Am I Making Myself Clear?" She is at work on a book about the misuse of scientific information in American public life.



Henry Reich
Minute Physics

Henry Reich is creator of the youtube channels "MinutePhysics" and "MinuteEarth." Henry studied math and physics at Grinnell College in Iowa and theoretical physics at the Perimeter Institute for Theoretical Physics in Waterloo, Ontario, before a stint working as a VFX artist catapulted him into the world of youtube. Henry's videos have received glowing reviews from 6 -year -olds, Nobel laureates, and even his mother.



Darryl Williams
Tufts University

Darryl Williams is the Associate Dean for Recruitment, Retention, and Community Engagement at Tufts' School of Engineering and directs the Center for STEM Diversity. Following his NIH Postdoctoral Fellowship in pediatric cardiology, he served as the executive director of iPRAXIS, a Philadelphia based nonprofit organization deploying volunteer practicing scientists and engineers (Scioteers) into classrooms throughout Philadelphia and was leader of the Innovative Technology Experiences for Students and Teachers (ITEST) program at NSF.

Interactive Sessions

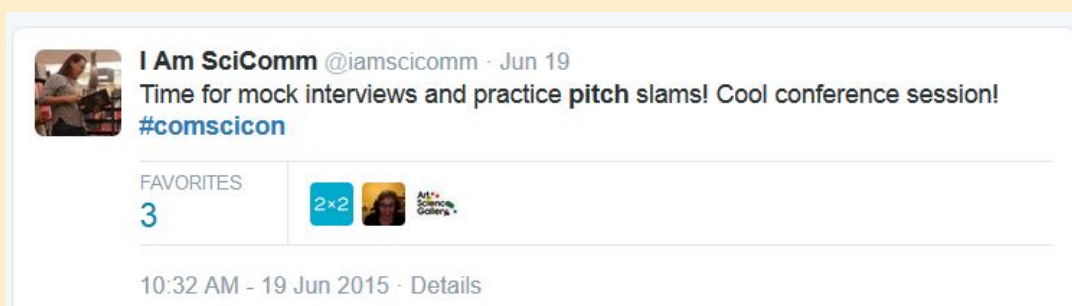
Each year, we capitalize on feedback from ComSciCon attendees to improve our workshop programming. In 2015, we debuted special sessions to help attendees polish interview and pitch development skills. These sessions led to some of the most direct and intimate exchanges between our graduate student attendees and invited experts.



Mock interviews

In the mock interview session, 18 ComSciCon attendees received expert coaching on interacting with the media. We started off with a short discussion about how to handle a media interview, led by three veteran reporters. But learning about interviewing is one thing; actually doing it is another! For the bulk of the session, participants split off into small groups to practice their interview skills in front of a camera. Each participant completed a 3-minute interview about his or her work, with one of the experts playing a local TV show host. After the interview, each participant received detailed feedback from the interviewer and the group. The interviewees also received copies of their videos to review on their own. When the real media come knocking, these researchers will be prepared!

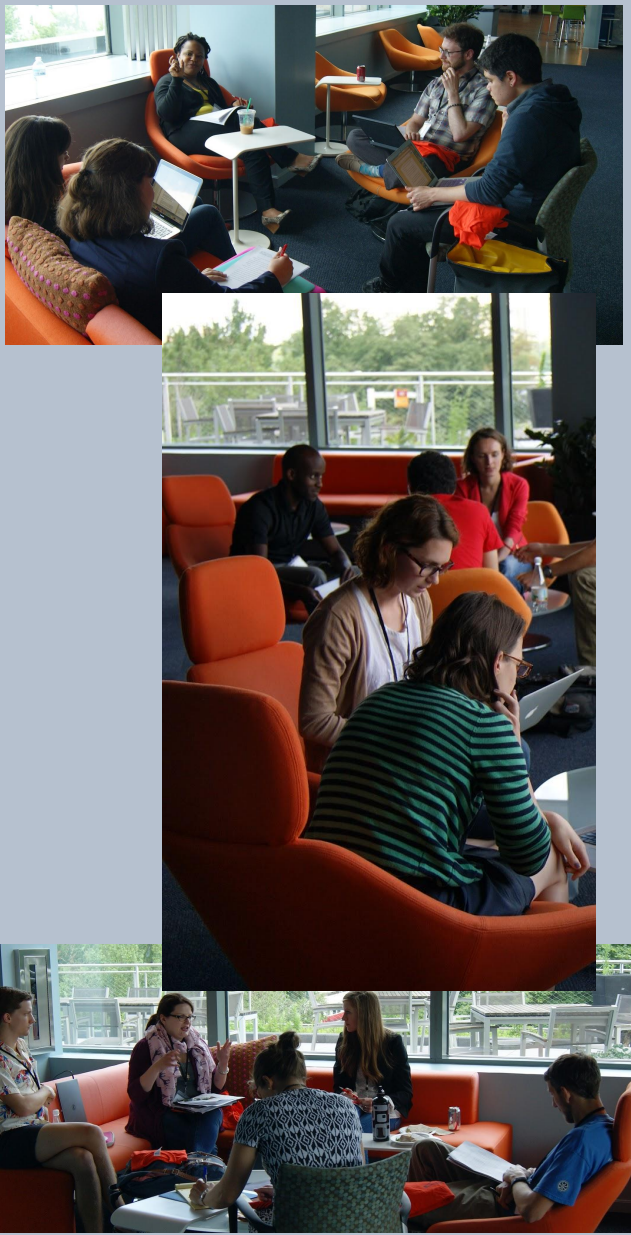
Pitch slam



In the first ever ComSciCon pitch slam, 32 attendees got hands-on practice in convincing editors to consider a story about a scientific topic for a popular publication. Five expert facilitators, including journalists Phil McKenna and Courtney Humphries, and *Chemical and Engineering News* Managing Editor Amanda Yarnell, provided real time feedback and instruction based on their hard-earned experience sharpening ideas, tailoring to an audience, and honing a message. An idea borrowed from the longstanding tradition at professional writers' conferences, the pitch slam provided attendees who may be aspiring science writers with an opportunity to build a sense of what makes a good story and how to sell that story to an editor.

Write-a-thon

Continuing a foundational ComSciCon tradition, our 2015 workshop was centered around the creative activity of focused attendee writing, guided by interactive editing with peers and expert communicators.



The write-a-thon is a central component of the ComSciCon workshop, intended to improve attendees' abilities to create accurate, engaging science communication pieces tailored to a particular audience and ready for publication. The write-a-thon also provides attendees with experience editing work by other writers, as well as giving and receiving constructive critiques. Before the workshop, attendees were asked to draft an original piece of writing, audio, or video focused on a topic related to science and technology. They were encouraged to tailor the piece to their intended audience and publication outlet.

During ComSciCon, each student worked in a group with 2-3 fellow attendees to improve their drafts. They applied concepts they had learned during the workshop to effectively convey their message and draw in their intended audience. Students then met with distinguished science communication experts to further discuss their writing and polish their pieces.

Written pieces were shared with professional writers and editors, including Gabriel Popkin, writer for Nature and others, and Nancy Schute of NPR. Radio producer Ari Daniel Shapiro mentored a group of students preparing and polishing their first science podcasts. This personalized editing experience fostered ongoing relationships between students and professional communicators, providing them with a network of experts who they can consult as they continue their professional development and consider careers in science communication. Attendees continue to work with ComSciCon organizers to submit their work for publication to a wide variety of partnering print and online outlets.

We are happy to note that fourteen pieces from ComSciCon's 2015 summer workshops have already been published in outlets, including those listed below! Congratulations to these authors, and we look forward to the publication of other articles still in review.



See a list of all 2015 publications on our website:





One of our attendees put his write-a-thon experience this way:

"At ComSciCon -- an event filled with many great experiences -- the write-a-thon was the most memorable experience for me. This was in part because it began before any of us met in person: it started with a blank sheet of paper and online discussions. Then, the peer group sessions, time spent on revisions late at night in my dorm room, the Pitch Slam, and meeting with an expert reviewer all fed the sense that my piece was developing into a highly polished product. Fantastic assistance from the ComSciCon organizers was also instrumental in helping me pitch to an actual publication outlet.

Today, a week after its publication, my article has already been read by thousands, translated into multiple languages, and started discussions around the world. I have ComSciCon to thank for making this possible -- it has transformed how I approach science writing for the public."

–Steven Pan, doctoral candidate at UC San Diego who studies human learning and memory published his piece, "The Interleaving Effect" in *Scientific American Mind* in August, 2015, excerpt below.

The Interleaving Effect: Mixing It Up Boosts Learning

Studying related skills or concepts in parallel is a surprisingly effective way to train your brain

By Steven C. Pan | August 4, 2015 | 0

We've all heard the adage: practice makes perfect! In other words, acquiring skills takes time and effort. But how exactly does one go about learning a complex subject such as tennis, calculus, or even how to play the violin? An age-old answer is: practice one skill at a time. A beginning pianist might rehearse scales before chords. A young tennis player practices the forehand before the backhand. Learning researchers call this "blocking," and because it is commonsensical and easy to schedule, blocking is dominant in schools, training programs, and other settings.

However another strategy promises improved results. Enter "interleaving," a largely unheard-of technique that is capturing the attention of cognitive psychologists and neuroscientists. Whereas blocking involves practicing one skill at a time before the next (for example, "skill A" before "skill B" and so on, forming the pattern "AAABBBCCC"), in interleaving one mixes, or interleaves, practice on several related skills together (forming for example the pattern "ABCABCABC"). For instance, a pianist alternates practice between scales, chords, and arpeggios, while a tennis player alternates practice between forehands, backhands, and volleys.



Whereas blocking involves practicing one skill at a time before the next (for example, "skill A" before "skill B" and so on, forming the pattern "AAABBBCCC"), in interleaving one mixes, or interleaves, practice on several related skills together (forming for example the pattern "ABCABCABC"). For instance, a pianist alternates practice between scales, chords, and arpeggios.

Credit: Thinkstock

Steven's full article is available on the [Scientific American Minds website](#); scan the QR code at right for a direct link.



K12 Session

After the success of last year's K12 session, this year's program was designed to allow for even more interaction between the ComSciCon graduate student attendees and ten local K12 teachers. Particular emphasis was placed on creating more opportunities for knowledge sharing between the academic and educational spaces.



Teacher Tyler Wooley-Brown and invited expert Stephanie Keep work with graduate students to edit their K12 writing pieces.

As part of the new programming, K12 educators attended the Saturday poster session where attendees present the latest enterprises in science communication. Teachers left this session with a multitude of new resources and eager to incorporate new activities into the classroom. Biology and physics teachers in attendance left the session looking for ways to incorporate the new teaching tool known as “Squishy Circuits” into their lessons.

This year, the graduate student attendees were instructed to write a summary of their research for targeted K12 audience prior to the workshop. The morning of the K12 session these pieces were edited by the teachers before breakout sessions with the graduate students. The addition of this review component enabled the graduate student attendees to learn new ways of explaining technical vocabulary and what makes material grade-level appropriate directly from teachers.

One of our teacher attendees, Dr. Kristen Cacciatore, described her experience -

I am a discerning consumer of teacher professional development and I thought [the ComSciCon K12 session] was outstanding. It is one thing to have a great idea — bringing grad students interested in science communication together with science teachers — but it takes a lot more than a great idea to implement an event that is valuable for all involved. The session was generative, producing resources that will be useful for many over a long period, and informative, as both teachers and graduate students learned from each other. It was a model of genuine collaboration, as both teachers' and grad students different expertises and perspectives were essential to generate the product.

In the second part of the breakout sessions the graduate students worked with the teachers, in groups of 4-5, to translate the topics into lesson plans that ranged from interactive activities to citizen science projects. While the graduate students left with direct understanding of how their research fits in the classroom, the teachers were able to leave with lesson plans they could use in their classroom.

This collaboration between educators and graduate students yielded tangible results in the form of 18 lesson plans. These “BiteScis” will be the cornerstone of a forthcoming online resource for educators. An additional ComSciCon K12 session will be held this fall as a part of the ongoing effort to launch this new platform.

Poster Session

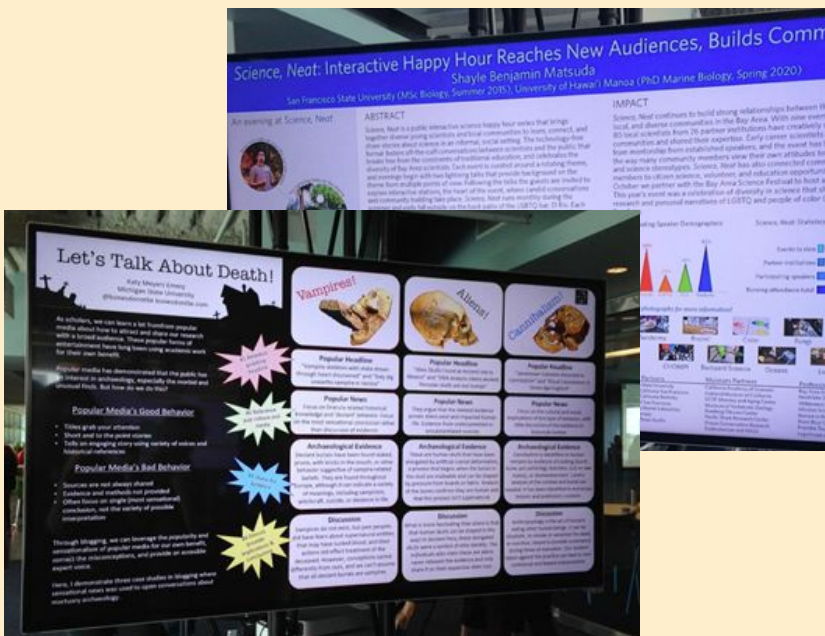
On Saturday, ComSciCon held a poster session where 20 attendees presented their own initiatives for science communication.

ComSciCon's high-tech poster session ditched poster tubes in favor of large-format flat panel HD display screens. By using digital screens, presenters could easily incorporate video and other media into their posters, all the better showcasing their outreach, communication, and social media projects.

After two full days learning from professional science communicators and producing their own original works, the poster session was an exciting chance to see the impressive work that participants have already done. Katy Meyers Emery, an anthropology PhD student at Michigan State, wowed participants and organizers alike with her poster "Let's Talk About Death," in which she demonstrated how she uses blog posts on sensational and unusual burials to open meaningful dialogues about archaeology with her readers. Others had hands-on activities in addition to their posters: Béatrice Bonga, a physics PhD student from Pennsylvania State, demonstrated an interactive activity using "squishy circuits," which uses play-dough, a battery, and LED lights to teach young students about electricity.



Attendees (teachers, graduate students, and invited experts) learned about Squishy Circuits from Béatrice Bonga.



Shaye Matsuda, a biology MSc student at San Francisco State, presented "Science, Neat" and Katy Myers Emery from Michigan State discussed the science of death with participants.

Poster presenters reported receiving great feedback on their projects, and attendees learned from others' work and formed new ideas for projects and collaborations. Learning about Shaye Matsuda's interactive science happy hour series, "Science, Neat," several attendees brainstormed how they could adapt a similar event to their own institution.

In addition to ComSciCon attendees, four local organizations joined us to showcase their innovative outreach efforts and make connections with attendees. Participants included representatives from the Journal of Emerging Investigators, which publishes the work of middle and high school students; and oceanbites.org, which publishes explanations of cutting-edge oceanography research.

Testimonials

ComSciCon was conscientiously documented by our organizers, by the Twitterstream and blog posts of our participants, and by the feedback we collected after the workshop. Here we share a selection of comments and testimonials from our attendees and invited experts.

Anonymous attendee feedback

"ComSciCon was FANTASTIC! It is hands-down the best conference I've ever been to. It was not only run very smoothly, but the panelists were all informative, helpful, and interesting. I loved being able to talk to other scientists about their science as well as their communication endeavors. I'm returning home with a lot of excitement and ambition to start new programs and projects at my institution."

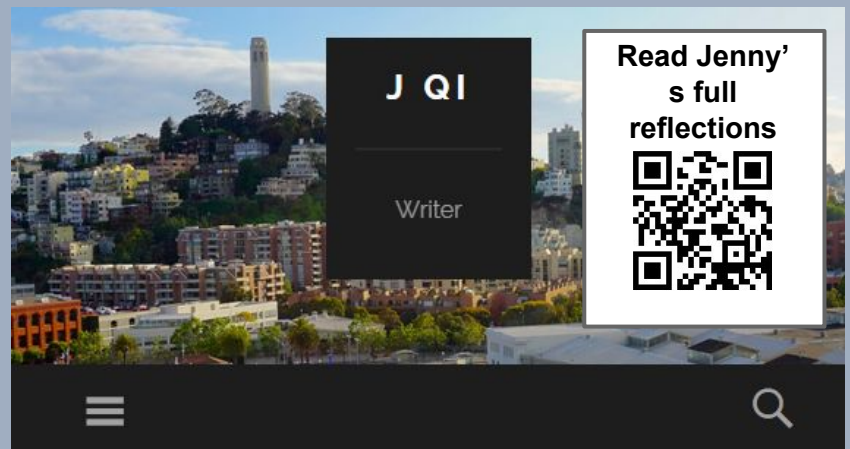
"One of the best experiences I've had as a scientist!"

"I enjoyed ComSciCon immensely. Thank you all for putting in so much time and effort to give us the experience... Grad students are not always treated like people and I felt respected and valued through the whole experience."

"Best conference I have ever attended. I'm so glad I got the opportunity to attend!"

"I loved how amazing all the attendees were. It was a really inspiring group of students and I learned as much from them as I did from the panelists/speakers (who were also great)."

Attendee blog post



Back from ComSciCon!

JUNE 23, 2015 / JENNY QI

I've just gotten back from a science communication conference called **ComSciCon**, started a few years ago by some really awesome astro PhD students at Harvard. I am totally blown away by their initiative in putting together what is now an annual national conference and the crazy amount of time they put into this while simultaneously working on their PhDs (and now real person jobs). More than anything, I am just so thankful—I was so burned out leading up to this, but I feel somewhat rejuvenated now.

Reflections on Twitter



Stephanie Keep
@keeps3

Follow

Already abuzz with ideas and the first @ComSciCon panel hasn't even started yet.



Ashley D'Antonio
@AshRecEco

Follow

The past few days at #comscicon have been incredible! I feel like I have learned so much and am totally amped about #SciComm



Molly Gasperini
@MollyGasp

Follow

Thanks so much #comscicon! Incredible work, inspiring community.

Self reported impacts

"I will seek out opportunities to interact with high school students and use this knowledge to provide meaningful exposures to current biology research, either in a formal classroom or in other settings."

"My goal is to create a ComSciCon-edu event, similar to the K-12 event we had on Saturday at ComSciCon15."

"I plan to write a series of articles and feel confident and comfortable approaching publishers."

"I'm hoping to produce a podcast based on my workshopped written piece!"

"I already talked to our secretary to organize a K-12 like event for the grad students and post-docs in our group."

Transformative learning: memorable advice

"'Just start writing.' You don't have to start out as an expert, if you're passionate about something, just start doing it. The polish and shine will develop along the way."

"The best piece of advice that was iterated in several panels and during the writing session: 'Why are you telling me this? And why now?'"

"When you are afraid to speak, amplify others' voices."

K12 session

"My educator was really awesome. She was able to help me work the lesson plan goals quickly. I think she saw that my lesson was practical so she was excited to turn it into a lesson plan because she saw that it had great potential!"

ComSciCon Franchises

The organization of local ComSciCon events is one of the most impactful products of the national ComSciCon workshops. Local workshops provide hundreds of graduate students at various universities around the country with the opportunity to grow as science communicators. Since ComSciCon's inception in 2013, local workshops have been held in Cambridge, MA, the North Carolina Research Triangle, Ithaca, NY, and Chicago, IL.

At this year's national workshops, participants learned about the organizational structure of ComSciCon and heard from a lead organizer of ComSciCon-Triangle. With this context, they met in regional groups to discuss the viability of a local event in their region, and the special challenges they would anticipate. These insights were documented in a share-out capping the session. Five more ComSciCon-local events are now in planning stages.



Participants discuss holding a ComSciCon-local in their home region, the Midwest.

Highlights from ComSciCon-Triangle 2015

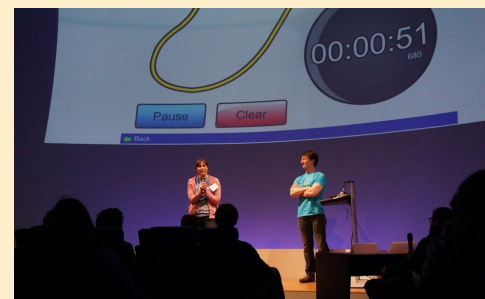
ComSciCon-Triangle was held on March 7th and 21st and hosted 50 attendees from Duke University, East Carolina University, North Carolina State University, and the University of North Carolina at Chapel Hill. NPR's Joe Palca, a long-time science correspondent, gave an engaging keynote address to begin the workshop. Mirroring the structure and style of the national workshops, ComSciCon-Triangle incorporated pop-talks by attendees, panel sessions on topics such as "engaging audiences with a scientific story" and "multimedia and non-print communication." Attendees also participated in a mini-workshop on "writing mechanics and the publishing process" led by Sara Peach, a professor in the UNC-Chapel Hill School of Media and Journalism. Peer and expert review sessions were held to edit attendees' own written popular science pieces as part of a "write-a-thon." A number of the attendees have since submitted their pieces for publication and several have been either accepted for publication or published in outlets such as Natural History Magazine, SciLogs, and The Abstract (NC State's Research Blog).

To close out the workshop, 10 of our attendees volunteered to participate in a public pop talk event in the NC Museum of Natural Science's *Daily Planet* theatre. Each participant gave their pop talk to that day's museum goers and received feedback from two expert judges including the NC Museum's "Science Comedian" Brian Malow. Overall, the event was a rousing success that the organizers plan to continue in the coming years. The Research Triangle proved to be a fantastically supportive atmosphere for an event promoting science communication.



Left: The attendees and organizers, of ComSciCon-Triangle 2015, together in Raleigh, NC.

Right: ComSciCon-Triangle co-organizer and ComSciCon14 attendee Reggie Bain assists with the public pop talk event at the NC Museum of Natural History's Daily Planet theatre.



Highlights from ComSciCon-Cornell 2015

ComSciCon-Cornell, a workshop serving Cornell as well as other upstate-New York universities, was spearheaded by ComSciCon alums and took place in May, 2015. Sponsored by the Broadening Experiences in Scientific Training (BEST) program and five other divisions of Cornell University, ComSciCon-Cornell was open to both graduate students and post-docs. Modeled after ComSciCon-Cambridge (2014), it was spread over two separate days with an eight-day interim for working on write-a-thon pieces. Nobel prize winner Roald Hoffman delivered the keynote address, focused on reconciliation of the arts and sciences.



Highlights from ComSciCon-Chicago 2015



The first-ever ComSciCon-Chicago workshop was held August 15-16, 2015. Almost two hundred graduate students from the Chicago region applied, and fifty among these were selected to attend. Attendees represented a great diversity of disciplines, coming primarily from Northwestern University and the University of Chicago, though some came from as far as the University of Wisconsin-Madison. The workshop consisted of four panels, featuring eleven local experts, a writing tutorial session, and other practical sessions. The workshop's keynote address was delivered by Dan Kahan of Yale University.

Highlights from ComSciCon-SciWri15

Fifteen alumni of past national and local ComSciCon events reunited this October in Cambridge, MA at Science Writers 2015, a gathering of more than 800 members of the National Association of Science Writers (NASW). They were treated to a unique opportunity to participate in the annual meeting of the world's largest society of science writers, and were granted exclusive interviews with the meeting's featured scientists to be published by NASW. The keynote panel featured Christie Aschwanden (FiveThirtyEight), Wade Roush (MIT/Knight), and Joe Palca (NPR).



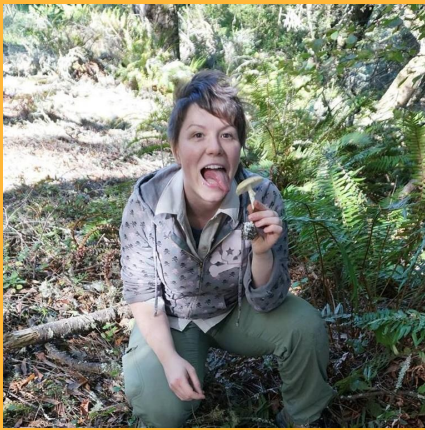
Longitudinal Impacts

ComSciCon national workshops are designed as three day intensive events, but their impacts do not end there. Here we highlight case studies of personal narratives of participants from past ComSciCon events, and examine how the program has changed the course of their careers and lives.

ComSciCon13 Attendee

Cat Adams

Biology at
Harvard University
& UC Berkeley



Read more
about Cat
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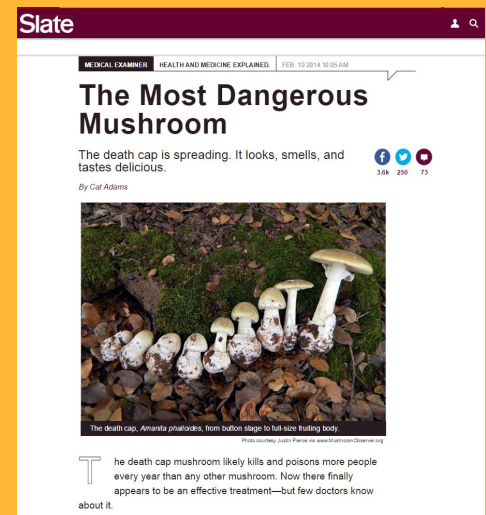


When Cat Adams joined us in Cambridge, MA for ComSciCon13, she was a first year graduate student in Organismal and Evolutionary Biology at Harvard University. She had capitalized on university publications as outlets for sharing her passion about plants and fungi, but her eagerness to reach a broader audience shone through in her ComSciCon application.

Cat's experience at ComSciCon13 was emblematic of the benefits of ComSciCon's mission to connect practicing young researchers with seasoned science communicators. "During a break, I chatted with [noted science journalist and ComSciCon invited expert] Dan Engber, and he encouraged me to pitch my story idea about the Death Cap Mushroom to Slate," she explained to us when we caught up with her recently. After careful editing at ComSciCon and by Slate, [her 2000 word article](#) was published by the widely read online magazine. **It was reprinted and shared far and wide,** including by more than 4000 people on social media.

In her words, the article has "jump-started" her journalistic career, leading directly to publications with BBC Earth and Popular Science. It's had equal impact on her research career, attracting attention from citizen science projects and other researchers.

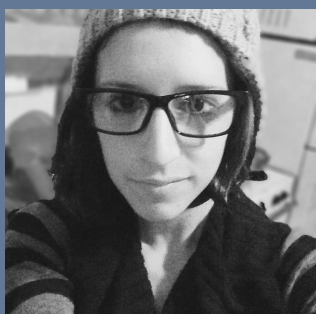
Cat reflects, **"I think writing for the public makes me a better scientist.** Writing is a key part of the scientific process, and practice makes perfect."



ComSciCon14 Attendee, ComSciCon15 Organizer

Maddie Stone

Earth and Environmental
Science Ph.D., UPenn '14



Maddie Stone applied to attend ComSciCon14 already recognizing a strong connection between her scientific work and her love for writing and fiction. At the workshop, she presented a poster on her blog, "The Science of Fiction," discussing the science behind future visions created in the sci-fi-verse.

Since then, Maddie has earned her PhD and established a career as a journalist and editor. She currently serves as a **Science News Officer at UPenn, a contributor to VICE's science and technology magazine Motherboard, and an editor at Gizmodo.**

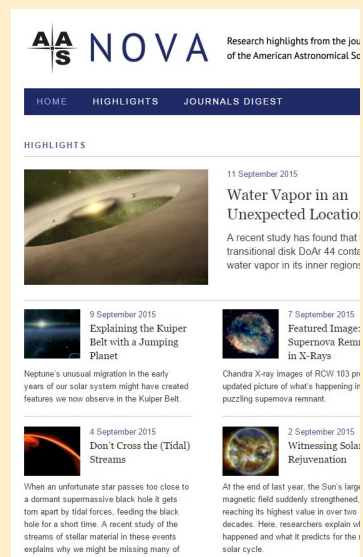
This year, Maddie **joined our Organizing Committee**, leading the panel discussion on "Science Communication in Popular Culture." She focused the panel on how science can be communicated informally through science fiction, art and film, inviting experts that included speculative fiction author Vandana Singh and MIT playwright Alan Brody.

**Astrobites Administrator,
ComSciCon Co-Founder
Susanna Kohler**
CU Boulder Astrophysics
PhD '14



After 4 years as a leader in the graduate-student run astronomy research publication Astrobites, and 3 years as a founding Organizer of the ComSciCon workshop series, Susanna Kohler was **hired for a new position established by the American Astronomical Society** last year, Science Highlights Editor. At the Society, Susanna has already **founded and launched AAS Nova**, a research highlights blog covering AAS journals.

AAS Executive Officer Kevin Marvel cited Susanna's Astrobites experience in the Society's announcement of her hiring: "[she was] essentially doing on a monthly basis what we are hiring her for on a weekly basis; the simplification and dissemination of key scientific results in our journals." In 2015, Susanna also contributed to the organization of a ComSciCon-local event at Cornell, serving upstate New York.



Already a student leader in science outreach at Duke and the University of South Carolina before that, Reggie Bain was not content to confine his impacts to a single community. His enthusiasm for physics and science communication exploded from his presence as an attendee at ComSciCon14. Reggie used that experience as a base to expand his leadership work in communication, joining the ComSciCon Organizing Committee this year, and **founding the first ComSciCon-local franchise in the North Carolina Research Triangle.**

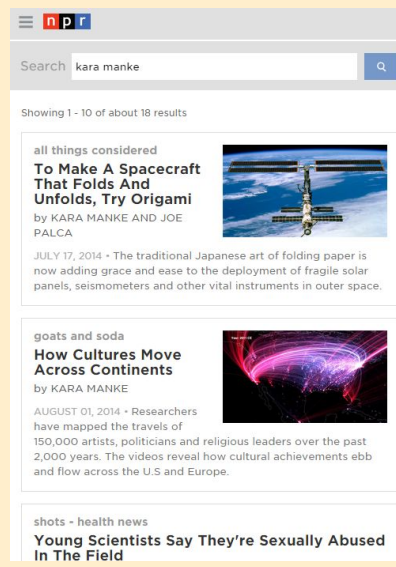
**ComSciCon14 Attendee,
ComSciCon15 Organizer
ComSciCon-Triangle Founder
Reggie Bain**
Duke Physics PhD Candidate

**ComSciCon Co-Founder
Kara Manke**
MIT Chemistry PhD '15



Kara's role as a leading organizer of the ComSciCon workshop series has led her to a diversity of exciting opportunities in science journalism. In 2014 she was awarded a **AAAS Mass Media Fellowship** to write for the science desk at National Public Radio, where she published 18 stories for the NPR blogs Shots and The Salt. Her science writing has also appeared in The Scientist, Frontiers in Energy Research, and the CASW New Horizons Newsroom.

Kara is now leading the organization of ComSciCon-SciWri15, a workshop for ComSciCon alumni attending the annual meeting of the National Association of Science Writers. Kara recently moved to Long Island to serve as a **Science Communication Intern at Brookhaven National Laboratory.**



Quantified Outcomes

After three years of accelerating participation and program development, ComSciCon has mounting achievements and integrated outcomes to report. Some highlights from our local and national events to date are summarized below.

- **Workshops** (*all since 2013*)

- **More than 3,000 applications** for ComSciCon events from graduate students
- **340** graduate student attendees
- **8** total ComSciCon workshops now concluded to date
- **6** additional ComSciCon-local events in planning by ComSciCon15 alums
- **\$300,000** raised to support graduate students through ComSciCon national and local workshops



- **Publications**

- **14** attendee writing publications and counting in 2015
- **42** total attendee publications since 2013
- **15** ComSciCon-SciWri15 attendee pieces to be published by the New Horizons Newsroom

- **Collaborations**

- **37** graduate students volunteered on ComSciCon national and local organizing committees
- **72** graduate student initiatives highlighted at ComSciCon national poster sessions
- **1000+** graduate student articles published by Astrobites, Oceanbites, Chembites, and Particlebites

Organizing Committee

ComSciCon15 was organized by a volunteer collaborative of 20 graduate students from Harvard, MIT, CU Boulder, and other universities around the country. Half of these students are alumni of past ComSciCon programs.

Local Organizing Committee

- Sergio Cantu (MIT)
- Ben Cook (Harvard University)
- Erin Dahlstrom (Harvard University)
- Chris Faesi (Harvard University)
- Susanna Kohler (U. of Colorado, Boulder '14)
- Colleen Lanier-Christensen (Harvard)
- John Lewis (Harvard University)
- Shannon M. Morey (MIT '13)
- Nathan E. Sanders (Harvard University '14)
- Jennifer Wei (Harvard University)

Program Organizing Committee

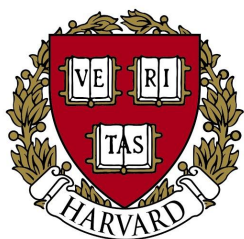
- Reggie Bain (Duke University)
- Maria Drout (Harvard University)
- Jesse Dunietz (Carnegie Mellon)
- Jacob M Hansen (University of Utah '14)
- Cyan James (University of Washington)
- Kate McClure (Northeastern University)
- Carrie McDonough (University of Rhode Island)
- Erica Kimmerling (Tufts University)
- Anna Schneider (University of Colorado, Boulder)
- Madeleine Stone (University of Pennsylvania '14)



Thank you to our sponsors!

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