Empathy

The D.C. Art Science Evening Rendezvous (DASER) is a discussion forum organized by Cultural Programs of the National Academy of Sciences (CPNAS), held 6-8 times annually. DASER fosters community and conversation around the intersections, and interweaving, of art, science, and culture. On May 19, 2016, CPNAS hosted a program exploring the theme of **Empathy**. Speakers were Mark L. Winston, Youngmoo Kim, Liz Lerman, and Sha Xin Wei (see page 4 for biographies). The discussion was moderated by JD Talasek. We welcomed 150 guests to this sold out event which featured inspiring and thought-provoking conversations between the speakers and audience. A networking reception was held at the Koshland Science Museum. The program was live-streamed and a recording is available on the NAS account at [https://livestream.com/accounts/7036396/events/4518927](https://livestream.com/accounts/7036396/events/4518927). Videos of the presentations are available on CPNAS' YouTube channel at: [http://www.YouTube.com/CPNAS](http://www.YouTube.com/CPNAS)
This DASER revisited a theme explored by some participants at the November 2015 National Academies Keck Futures Initiative (NAKFI) conference held in Irvine, CA. NAKFI has been catalyzing interdisciplinary research since 2003; the 2015 conference focused on intersections of art and science.

The evening began with community share time, where audience members could identify themselves for the purpose of networking. Several people gave short, fascinating descriptions of their current projects at the intersection of art, science, and culture. Liz MacDonald, a NASA space physicist, described her interdisciplinary Northern Lights citizen science project; Heather Spence, a marine biologist and musician, described how she uses an underwater sculpture to record marine activity sounds off the coast of Cancun; Susan Bardenhagen described a STEAM workshop she is leading this summer for science educators; and Jenna North, an interdisciplinary artist and art professor at George Mason University, described her art and ecology project about the Maldives.

Mark L. Winston began the formal portion of the evening with a talk titled “Feeling Outside Yourself.” He defined empathy as “the feeling of being one with something outside yourself.” Winston described how collaboration can be a primary driver of empathy. He said that science tends towards data, setting emotional distance in the interest of objectivity. Art often emphasizes emotion, reducing distance between us and the other. Together, empathy can result when art and science merge, impacting important personal, social, and environmental issues. Winston described three such projects focused on intersections of the performing and visual arts with studies of coral reefs, honey bee behavior interpreted through dance, and artists collaborating with bees in beehives, where empathy resulted.

In his talk titled “Empathy, Culture, and Engineering Collaboration,” Youngmoo Kim posed the question, “can you feel what someone else feels, literally?” He described the work of Drexel University’s ExCITE (Expressive and Creative Interaction Technologies) Center. Through innovative projects using textiles, robotics, gaming, and other media, their work explores how physical, visual, and auditory interfaces can provide an experience illuminating another person’s perspective to foster empathy and expressive communications. Kim also described his groups’ work at the 2015 NAKFI conference on the concept of an Empathy Mirror to immerse users into the mind and body of another, using a combination of touch, smell, sight, and sound. The experience will be designed to counteract the “echo chamber” effect linked to most digital technologies and increase empathy. In June 2016, it was announced that his group had received a grant from NAKFI to help bring this idea to fruition.

In her talk, “Episodes in Science,” Liz Lerman described moments in the research and development of her work with scientists that illuminate the pleasures, drama, and purpose of spending time in each other’s universes. Through her research about the human genome for the performance piece that would eventually be called “Ferocious Beauty: Genome,” she met Stanford University marine biologist Stephen Palumbi. She described how when Palumbi explained to her that humans share a common ancestor with whales, it changed her entire world and altered the way she understood the piece she was developing. For another scene in “Ferocious Beauty: Genome,” she and geneticist Nancy Wexler worked closely with dancers to enable them to embody the movements of patients with Huntington’s disease. Lerman distinguished between “pretending” to be something or someone else and working to embody or become the other. Through embodiment, we develop deeper understanding and a more profound sense of empathy. She described empathy as a tool, skill, method, technique, and an outcome that we are all capable of achieving. In order to achieve empathy, we’re going to have to push the boundaries of our professions and consider changing the way we work.

Audience member Darcy Gentleman demonstrated Youngmoo Kim’s Empathy Mirror concept.

In his talk, “Empathy & Care: The Stuff of Politics and the Politics of Stuff,” Sha Xin Wei posed a profound question: What would happen if the boundary between where your body ends and where the world begins becomes a question? He challenged the audience to question their assumptions about matter and the world around us. Sha showed examples of projects at the Topological Media Lab, Concordia University, Montreal, and the Synthesis Center, Arizona State University, Tempe, where artists, scientists, students, and others have been exploring these questions through experiments and participatory experiences. Projects ranged from turning inanimate objects such as an eggplant into a musical instrument to turning sand into light. At the conclusion of his presentation, he left us with a thought to ponder: If matter is suffused with value, just as humans are suffused with value, it follows that there is an ethical relationship, not a practical one, between people and matter.
CAN I QUOTE YOU? Audience Responses

THE BEST PART WAS:
Everything. DASER has become my new favorite thing.
Youngmoo Kim showed a great opening video.
The personal stories the speakers shared.
Community share.
Youngmoo Kim’s talk about music cognition software, fabric robots, and other engineering feats.

THIS CHANGED MY OPINION OF:
How technology can impact empathy and vice versa.
Interpretation of science through dance.
Empathy is being mindful about how I am complicit.

I WISHED THEY TALKED MORE ABOUT:
Artificial intelligence and what it means to be human.

I loved the conversation after the presentations. More cross talk, please!
Empathy as it pertains to robots.

THE SPEAKER NAILED IT WHEN:
When Mark Winston said that science gives data and art gives the substrate upon which we get to know each other better. Science and art share creativity.

#DASER Social Media Highlights

There was lively Twitter and Instagram activity during the DASER program.

@nicolatriscott: Back at #DASER again. Ready for the usual array of great talks and food for ideas.

@brianlinworks: #data is important but that’s not how you move people. You do that through #art: Mark Winston @CPNAS #DASER

@nonewtdance: What happens when you see yourself say that which you would never say? @youngmoo #DASER

@jsener: Liz Lerman: ‘I believe that in the past people danced for days to prepare for the hunt so they could become what they were not.’ #DASER

@drdarsci: Piece by @danceexchange Liz Lerman choreographing Huntington’s physicality backdropped by genomic info is powerfully emotional. #DASER

@brianlinworks: Could there be art that’s not made by and for humans? Could Earth be not just for us? @ShaXinWei #DASER

@nicolatriscott: Sha Xin Wei: Asking profound questions about what we know, but the musical aubergine is the crowd pleaser. #DASER

@drdarsci: Thinking of empathy and ethics and quantum mechanics and art and all things ineffable after @ShaXinWei #DASER talk.

@drdarsci: “Busy as a bee” (Chaucer) is a misnomer-bees rest much, keeping reserves to respond when shape around them changes - Winston #DASER

@manuelfigallo: #DASER is awesome! Thanks to @cpnas for putting it together.

Read the complete social media Storify archive: https://storify.com/CPNAS/daser-empathy.
in 1976 and led it until 2011. Her current work, Healing Wars, just finished touring across the US. Liz conducts residencies on the Critical Response Process, creative research, the intersection of art and science, and the building of narrative within dance performance at such institutions as Harvard University, Yale School of Drama, Wesleyan University, Guildhall School of Music and Drama, and the National Theatre Studio among many others. Her third book, *Hiking the Horizontal: Field Notes from a Choreographer*, was published in 2011 by Wesleyan University Press.

Sha Xin Wei is Professor and Director of the School of Arts, Media + Engineering at Arizona State University. He also directs the Synthesis Center for transversal art, philosophy and technology at ASU, and is a Fellow of the ASU-Santa Fe Institute Center for Biosocial Complex Systems. Sha’s core research concerns a topological approach to poiesis, play and process. His art and scholarly work range from gestural media, movement arts, and real time media installations through interaction design to critical studies and philosophy of technology. Trained in math at Harvard and Stanford Universities, Sha has pursued speculative philosophy, experimental art, and visionary technologies that are reciprocally informed to equal depth and poetry. In 2001 he established the Topological Media Lab (TML) as an atelier for the study of gesture and materiality. From 2005-2013 as Canada Research Chair in media arts and sciences and Associate Professor of Design and Computation Arts at Concordia University, Montréal, he led the TML creating responsive environments for ethico-aesthetic improvisation. MIT Press published his book, *Poiesis, Enchantment and Topological Media*, in 2013.
TWITTER REPORT  

**TWEETREACH SNAPSHOT FOR**  

**#DASER**

**ESTIMATED REACH**

137,588

**ACCOUNTS REACHED**

**EXPOSURE**

459,578

**IMPRESSIONS**

**ACTIVITY**

154

TWEETS

31

CONTRIBUTORS

10

DAYS

**TOP CONTRIBUTORS**

176.1k

IMPRESSIONS

@CPNAS

**MOST RETWEETED TWEETS**

5

NAKFI @Kackalflutter  
ANAKF2015 alum @youngmoe, @canadacentre  
Director, speaks at 5/19 #DASER on Empathy  
webcast.cma.ca/46d3f0a8e716

4

CPNAS @CPNAS  
#DASER on Empathy with @intenmez, @youngmoe,  
@ShawStWalk and Merle Wilson will sell out today  
Reserve your seat now! bit.ly/2d00077

3

CPNAS @CPNAS  
Thursday’s #DASER on Empathy is sold out. Join the  
waitlist @ http://events.conferencecanadacanada.org/...  

PHOTO CREDITS

Page 1: From left to right, Lise Metzger, Aganetha Dyck, and Manuel Figallo. Pages 2-5: All photos by Kevin Allen Photo.