Preliminary Program

As of October 11, 2020

Please note that this program will continue to be updated as we confirm additional details.

ASTC Virtual 2020 Annual Conference

New Frontiers
In Science, Technology, Learning, and Community Engagement Toward a More Equitable Tomorrow
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**Please note that this program will continue to be updated as we confirm additional details.**

As with any conference, and especially in a new all-virtual format, we will continue to share updates to maximize your conference experience. The conference virtual platform will contain the most current information. Registrants will receive information about accessing the platform in the days leading up to conference.
Preliminary Program

Subject to change

ASTC Virtual 2020 Annual Conference

The Association of Science and Technology Centers (ASTC) Annual Conference is one of the premier annual events for science-engagement professionals across North America and around the world. Each year, this event brings together thousands of science and technology center and museum and allied professionals working in science communication, STEM learning, and the broader intersections between science, technology, and society.

Well into planning for this year’s Annual Conference—and after session proposals were originally submitted—the world was turned upside down by the COVID-19 pandemic, resulting severe economic disruption, and a renewed sense of urgency to address systemic racism and long-standing systems of oppression, privilege, and power that maintain inequity.

Because none of the many excellent session proposals that would lead to stimulating discussion and help to advance our field were submitted with awareness of what we would be experiencing as a field, as a professional community, and as a society, ASTC issued a new call for conference session proposals that specifically address the individual, organizational, and societal challenges we are now facing.

With the theme of “New Frontiers in Science, Technology, Learning, and Community Engagement toward a more Equitable Tomorrow,” our virtual conference will explore the future of our institutions, our work, and our impact in our communities. We will look specifically through the lens of our most urgent concerns regarding the overlapping public health, economic, and moral crises—and the implications they have for our work, our organizations, and our communities.

Proposals were asked to clearly address one or more of the topics listed below:

- The public health crisis of COVID-19, with its disparate impacts regionally and among Black, Indigenous, and People of Color and low-income communities
- The economic crisis, which has caused our organizations to explore new business models, funding sources, and operational strategies
- The moral crisis as individuals, organizations, and communities are reckoning with long-standing systemic racism and anti-Blackness
- Reimagining the future of the work of science and technology centers and museums and other science engagement and science learning organizations
Submissions could address any topic relevant to science and technology centers and museums and the broader fields of informal science learning and public engagement in science, but should consider our current circumstances, capabilities, and priorities. ASTC welcomed proposals from inside and outside the science center field that help advance our shared vision of increasing understanding of—and engagement with—science among all people.
Thank You to the ASTC 2020 Sponsors
As of October 9, 2020

Diamond and Plenary Session Sponsor

THE KAVLI FOUNDATION

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New Frontiers Sponsors

We also thank the supporters of the New Frontiers Virtual National Summit and related elements of the ASTC Annual Conference:
The Association of Science and Technology Centers (ASTC) Annual Conference—and other professional meetings, events, webinars, and projects organized by ASTC—are dedicated to providing a harassment-free experience for everyone attending or participating. We do not tolerate harassment of people in any form, and we empower all participants in our community to actively engage in creating a friendly and safe environment for all.

This Code of Conduct is part of ASTC’s mission to champion and support science and technology centers and museums—organizations that support lifelong science learning, connect science and society, engage diverse communities, and partner to tackle global and local challenges. ASTC holds fundamental values to seek out and engage in diversity of ideas, perspectives, backgrounds, disciplines, knowledge systems, and approaches. Our world is rich in diversity, and ASTC embraces those differences, including in ability, age, color, ethnicity, race, family or marital status, sex, gender identity and expression, sexual orientation, pregnancy and related medical conditions, language, national origin, political affiliation, religion, socioeconomic status, veteran status, health status, and other dimensions of diversity.

As an attendee, presenter, exhibitor, sponsor, or guest at the ASTC Annual Conference and other events or programs organized by ASTC, I will:

- Conduct myself with integrity, respect, honesty, and credibility.
- Approach all events and interactions in accordance with the highest ethical standards of professionalism and personal conduct.
- Avoid all activities that will cause damage to or discredit my organization, ASTC, or myself.
- Embrace ASTC’s diverse community of professionals and learners, and be inclusive of all audiences in my presentations, demonstrations, and conversations.
- Seek help from ASTC staff if I do not know how to fulfill any of the stated actions.

This Code of Conduct is in place to protect the safety of all participants. Contact, language, or imagery of a violent, threatening, sexual, discriminatory, demeaning, or disruptive nature is not appropriate for any in-person or online conference or project venue, including talks, workshops, parties, and online forum or media. If you witness any misconduct of this code, please report it to any ASTC staff member:

- In-person through the conference facility, including at the front desk (as applicable).
- Online by emailing ideas@astc.org.

Attendees or project participants asked to stop any harassing or discriminatory behavior are expected to comply immediately. ASTC leadership, at their sole discretion, may take action to redress anything disrupting the event or project making the environment unsafe for participants, including asking any individuals to leave the event or project at their own expense and without a refund of any fees paid.
Conference Tracks

In 2020, the conference tracks reflect the people, essential operating components, content design, learning environments, and community relationships that are the core concerns of ASTC members.

LEADERSHIP AND PROFESSIONAL DEVELOPMENT
Sessions in this track focus on developing leadership skills and expertise in running professional organizations committed to engaging the public in science. This can include topics like leadership capacity, science center and museum staff diversity and inclusion, organizational governance, career development, cultural competence, strategic planning, change management, capacity for innovation, and future directions for the field.

BUSINESS OPERATIONS, MARKETING, AND DEVELOPMENT
Sessions in this track emphasize the essential components of a successful organization. Topics can be related to administration; buildings and operations systems; communications, public relations, and marketing; development, fundraising, and member relations; volunteer engagement; community relations; business models and revenue generation; and human-resources management.

CONTENT AND DESIGN
This track includes sessions about the content and design of audience-directed activity: exhibits and environments, immersive media and experiences (planetariums, large-format films, stereoscopic theaters, simulators, etc.), program content, outreach and engagement, research and evaluation, and demonstrating impact.

INFORMAL EDUCATION AND LIFELONG LEARNING
Sessions in this track focus on the role that science centers play in educating their audiences, driving learning outcomes, and working within and improving the educational ecosystems of their local communities and regions through relationships with K–12 schools and districts, out-of-school-time organizations, institutions of higher education including learning research, and industry. New models and effective programs for learners and educators of all types fit into this track.

EXTERNAL COLLABORATIONS, PUTTING COMMUNITY FIRST, AND CO-CREATION
This track includes sessions that give compelling examples of ways that partnerships within communities across the science, technology, learning, and engagement ecosystems help to put community goals and aspirations at the forefront of their work, reach learners where they are, and connect through collaboration and co-creation. These can include examples from different structures like partnerships, collaborations, collective-impact initiatives, networks, ecosystems, and alliances, as well as public events like science fairs, festivals, or creative spaces outside of a museum’s building.
Topical Tags

Tags are content topics that describe what is featured in a session or poster. Each presentation may have up to three topical tags.

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Title
CONFERENCE TRACK

Description

Session Leaders: [null]

Presenters: [null]

Tags: TAG1; TAG2; TAG3
FOR CHIEF EXECUTIVES ONLY: Chief Executive Preconference Intensive: Budgets
LEADERSHIP AND PROFESSIONAL DEVELOPMENT
Tuesday, October 13, 2020 – Wednesday, October 14, 2020
11:00 a.m.–1:00 p.m. EDT (each day)

This half-day program will be your opportunity “get real” on budgets with other chief executives of science and technology centers and museums.

Co-Leaders: Lesley Lewis, Former CEO/Consultant; Charlie Trautmann, Director Emeritus, Sciencenter

BY INVITE ONLY: NASA’s Universe of Learning Informal Network Virtual Convening
INFORMAL EDUCATION AND LIFELONG LEARNING
Tuesday, October 13, 2020 – Wednesday, October 14, 2020
1:00 p.m.–5:00 p.m. EDT (each day)

This preconference workshop is designed to bring together program model participants with Universe of Learning (UoL) organizing partners and create a space where they can share insights and foster engagement with one another.

Facilitators: Timothy Rhue, Senior Informal Education Specialist, Space Telescope Science Institute; Mary Dussault, Program Manager, Harvard Smithsonian Institute for Astrophysics; Yesenia Perez, Informal Education Specialist II, Space Telescope Science Institute; Erika A. Wright, Education Specialist, Center for Astrophysics | Harvard & Smithsonian

Tags: Future Planning; Diversity and Equity; Partnerships

Leveraging the Power of Science Centers to Reimagine Future Community Climate Solutions and Resilience
LEADERSHIP AND PROFESSIONAL DEVELOPMENT
Tuesday, October 13, 2020
1:00 p.m.–5:00 p.m. EDT

Come learn about new approaches science centers are taking to engage their audiences and work with their local communities to advance climate resilience efforts.

Facilitators: Frank Niepold, Education Coordinator, National Oceanic and Atmospheric Administration; Carrie McDougall, Senior Program Manager, National Oceanic and Atmospheric Administration; Bart Merrick, Education Coordinator, Environmental Science Training Center, National Oceanic and Atmospheric Administration

Tags: Community Impact; Making the Case for Science Centers; Diversity and Equity

Preliminary Program: Preconference ASTC Intensives
Unpacking Identities: Exploring the Impact of Staff Experiences on Youth
INFORMAL EDUCATION AND LIFELONG LEARNING
Tuesday, October 13, 2020 – Wednesday, October 14, 2020
2:00 p.m.–4:00 p.m. EDT (each day)

This period of isolation and social unrest highlights a need to reflect, develop an understanding of power, privilege, and oppression (PPO), explore issues in the workplace and analyze program structures to develop strategies for making change.

Facilitators: Nick Martinez, Manager of Internships and Youth Community, American Museum of Natural History; Marissa Gamliel, Cultural Anthropology Educator, American Museum of Natural History; Tramia Jackson, Senior Coordinator, Science Research Mentoring Consortium, American Museum of Natural History; Kenya Townsend, Program Manager, Center for Excellence in Youth Education, Icahn School of Medicine at Mount Sinai; Andrea Motto, Manager of Public and Youth Engagement, Yale Peabody Museum of Natural History

Tags: DIVERSITY AND EQUITY; SOCIAL JUSTICE; INCLUSIVE WORKFORCE DEVELOPMENT

ASTC’s Community Science Initiative: Workshop on models, attributes, and opportunities for expanding the work
CONTENT AND DESIGN
Wednesday, October 14, 2020
11:00 a.m.–2:00 p.m. EDT

The session will engage participants in ASTC’s Community Science Initiative by sharing some of the insights from our ongoing landscape study of models and approaches to community in the science engagement field. This free pre-conference intensive is generously supported by the Chan Zuckerberg Initiative and the Gordon and Betty Moore Foundation.

Facilitators: David Sittenfeld, Manager, Forums and National Collaborations, Museum of Science; Ivel Gontan, Community Science Fellow, ASTC

Tags: COMMUNITY IMPACT; DIVERSITY AND EQUITY; SOCIAL JUSTICE
Saying “Yes, And” to Improve Agility and Responsiveness in a Disrupted World

**INFORMAL EDUCATION AND LIFELONG LEARNING**

**Wednesday, October 14, 2020 – Thursday, October 15, 2020**

11:00 a.m.–1:00 p.m. EDT (each day)

In science centers and museums, things don’t always go as planned. Learn improv techniques for fast and effective collaboration. (This isn’t a comedy class and there’s no pressure to be funny in front of the group!)

**Facilitators:** Daniel Bateman, Public Programs Manager, Exploration Place; Sandy Marshall, Producer and Writer; Partner, Norman Howard

**Tags:** VIRTUAL ENGAGEMENT; PUBLIC PROGRAMS; TALENT MANAGEMENT

Writing Competitive Proposals to Federal Agencies

**BUSINESS OPERATIONS, MARKETING, AND DEVELOPMENT**

**Thursday, October 15, 2020**

11:00 a.m. –1:00 p.m. EDT and 2:00–4:00 p.m. EDT

Join this half-day workshop to learn how to prepare competitive proposals for U.S. Federal funding opportunities. Participants will engage with representatives from several Federal agencies.

**Facilitators:** Ellen McCallie and Bob Russell, Program Directors, Division of Research & Learning, Education & Human Resources Directorate, National Science Foundation; Tony Beck, Program Director, Division for Research Capacity Building, National Institute of General Medical Sciences, National Institutes of Health; Helen Wechsler, Supervisory Grants Management Specialist, Institute of Museum and Library Services; John McLaughlin; Education Program Manager, Office of Education, National Oceanic and Atmospheric Administration; Melissa Ballard, Senior Manager of Public Policy and Advocacy, ASTC

**Tags:** BUSINESS DEVELOPMENT; FUNDRAISING; GRANT WRITING

Designing Convenings for Community Conversations and Action

**EXTERNAL COLLABORATIONS, PUTTING COMMUNITY FIRST, AND CO-CREATION**

**Thursday, October 15, 2020**

1:00–5:00 p.m. EDT

As society grapples with three compounding crises—COVID-19, systemic racism, and climate change—museums must meaningfully engage with these topics in order to remain relevant in their communities.

**Facilitator:** Stephanie Ratcliffe, Executive Director, The Wild Center

**Tags:** ADULT ENGAGEMENT
Sustainable Futures: Science Centers and Community Partners Working Together for People and the Planet

LEADERSHIP AND PROFESSIONAL DEVELOPMENT
Thursday, October 15, 2020 – Friday, October 16, 2020
3:00–5:00 p.m. EDT (each day)

During this workshop, participants will gain a deeper understanding of sustainability science and practice, identify priorities for your organization and community, and develop a strategy and next steps.

Facilitators: Rae Ostman, Associate Research Professor, School for the Future of Innovation in Society, Arizona State University; Nicholas Weller, Postdoctoral Research Associate, School for the Future of Innovation in Society, Arizona State University; David Laubenthal, Creative Director, Oregon Museum of Science and Industry; Kari Wouk, Senior Manager of Educational Collaborations, North Carolina Museum of Natural Sciences; Ross Johnston, Virtual Learning Education Specialist, Mote Marine Laboratory and Aquarium

Tags: Sustainability; Future Planning

Tools for Conversations on Equity and Broadening Participation in STEM

LEADERSHIP AND PROFESSIONAL DEVELOPMENT
Friday, October 16, 2020
11:00 am–1:00 p.m. EDT and 3:00–5:00 p.m. EDT

Join this CAISE preconference intensive workshop to gain hands-on experience with a toolkit you can use to facilitate discussions with colleagues and staff on increasing equity and inclusion in your organization.

Facilitators: Jamie Bell, Project Director, Center for Advancement of Informal Science Education; Cecilia Garibay, Principal, Garibay Group; Rabiah Mayas, Vice President, Education, Museum of Science and Industry, Chicago

Tags: Community Impact; Diversity and Equity; Social Justice

Tools and Training for Starting a Successful Space and Earth Science Virtual Public Program

INFORMAL EDUCATION AND LIFELONG LEARNING
Friday, October 16, 2020
3:00–5:00 p.m. EDT

Dig into free resources and training from NASA-funded informal education projects that will help you program virtual events and online engagement using space and Earth science materials.

Facilitators: Darrell Porcello, Director of STEM Networks and Partnerships, Children’s Creativity Museum; Yesenia Perez, Informal Education Specialist II, Space Telescope Science Institute; Amelia Chapman, Education Program Specialist, NASA Jet Propulsion Laboratory,
Rosamond Kinzler, Senior Director, National Center for Science Literacy, Education, and Technology, American Museum of Natural History, Alexandra Jackson, Interim VP of Education & Director of Partnerships, Sciencenter

Tags: SCIENCE EDUCATION; PUBLIC PROGRAMS; VISITOR EXPERIENCE
MONDAY, OCTOBER 19, 2020
All times Eastern Daylight Time. Schedule subject to change.

9:30–11:00 a.m. EDT

Explore the Virtual Exhibit Hall

10:30 a.m.–11:00 a.m. EDT

Navigation and Networking Gathering

Please join a group of first-time participants, those who haven’t attended the ASTC Annual Conference in a while, and others who want to connect with other participants and get an overview of the event and tips for navigating the virtual conference.

11:00 a.m.–1:00 p.m. EDT

Opening and Keynote Session

Science communication and storytelling to make science more equitable and inclusive

Dr. Mónica Feliú-Mójer, Director of Science Communications & Science Outreach, Ciencia Puerto Rico; and Associate Director of Diversity and Communications Training, iBiology

1:00–1:45 p.m. EDT

Explore the Virtual Exhibit Hall

1:30–3:00 p.m. EDT

Exploring Funding Opportunities from U.S. Federal Agencies

BUSINESS OPERATIONS, MARKETING, AND DEVELOPMENT

Learn about upcoming funding opportunities from the National Science Foundation (NSF), National Institutes of Health (NIH), National Aeronautics and Space Administration (NASA), the Institute of Museum and Libraries Services (IMLS), the National Oceanic and Atmospheric Administration (NOAA), and the National Endowment for the Humanities (NEH).

Presenters: Carrie McDougall, Senior Education Program Manager, Office of Education, NOAA; Tony Beck, Program Director, Division for Research Capacity Building, National Institute of
General Medical Sciences, NIH; Behrous Davani, Program Director, Networks and Development Programs Branch, Division for Research Capacity Building, National Institute of General Medical Sciences, NIH; Bob Russell, Program Director, Division of Research & Learning, Education & Human Resources Directorate, NSF; Beverly Girten, Manager of Informal Education and Engagement, Office of STEM Engagement, NASA; Helen Wechsler, Supervisory Grants Management Specialist, IMLS; Peter Fristedt, Senior Program Officer, NEH; Melissa Ballard, Senior Manager of Public Policy and Advocacy, ASTC

Tags: Fundraising; Grant Writing; Learning Research

1:45–3:00 p.m. EDT

Building and Nurturing DEAI Committees: Theory and Practice in Museums
EXTERNAL COLLABORATIONS, PUTTING COMMUNITY FIRST, AND CO-CREATION

Establishing and nurturing a Diversity, Equity, Access, and Inclusion (DEAI) committee can be critical for organizations prioritizing equity work. Case studies from three Cultural Competence Learning Institute (CCLI) alumni offer examples of committee structures and scopes that can lead to meaningful change in equity for staff, stakeholders, and communities.

Session Leader: Treloar Bower, Manager of Program Development, Denver Museum of Nature & Science
Presenters: Andréa Girón Mathern, Director of Community Research and Engagement Strategies, Denver Museum of Nature & Science; Alexandra Pafilis, Director of Early Learning Initiatives, Chicago Children’s Museum; Tanya Butler Holder, Associate Director of Administration, Long Island Childrens Museum

Tags: Diversity and Equity; Racial Justice; Social Justice

CEO Session: Leading an Organization Through a Crisis
LEADERSHIP AND PROFESSIONAL DEVELOPMENT

2020 has seen some of the most difficult leadership challenges of most of our careers. This session will provide an opportunity to discuss the overlapping issues you are facing with your fellow chief executives of science and technology centers and museums, including the unique challenges that chief executives face as they navigate their organization through these difficult times. For science and technology center and museum chief executives only.
Color Commentary: Get in the Game by Connecting and Collaborating with People of Color

LEADERSHIP AND PROFESSIONAL DEVELOPMENT

Get off the SIDELINES of diversity, equity, access, and inclusion and GET IN THE GAME! 2020 is a grudge match between justice and the status quo. Mix it up in a "solution room" with power players who are done playing defense and are ready to toss the ball to YOU!

Session Leader: Christian Deveaux Greer, President and CEO, Michigan Science Center
Presenters: Preeti Gupta, Director of Youth Learning and Research, American Museum of Natural History; William T. Harris, President & CEO, Space Center Houston; Chevy Humphrey, The Hazel A. Hare President & CEO, Arizona Science Center; Laura Huerta Migus, Executive Director, Association of Children's Museums; Kellen Nixon, Nixon & Co; Tifferney M. White, Chief Learning Officer, Discovery Place; Frederic Bertley, President & CEO, COSI

Tags: DIVERSITY AND EQUITY; INCLUSIVE WORKFORCE DEVELOPMENT; RACIAL JUSTICE

Data Science and the Epidemiology of COVID: Educating Youth through Out-of-School Programs

CONTENT AND DESIGN

Data about COVID-19 fascinate youth and provide especially relevant learning venues about data science and epidemiology. We will explore how to use datasets and data tools with middle school youth in virtual environments, drawing from experience with a summer camp in Maine and a Boston Museum of Science afterschool program.

Session Leader: Jan Mokros, Senior Research Scientist, Institute for Science Education
Presenters: Jacob Sagrans, Institute for Science Education; Andee Rubin, Principal Scientist, TERC

Tags: COVID-19; OUTREACH; YOUTH DEVELOPMENT

Findings from the National Landscape Study: DEAI practices in museums

LEADERSHIP AND PROFESSIONAL DEVELOPMENT

The National Landscape Study illustrates the state of DEAI practices across the museum field and offers museums valuable data to help assess their work. Join this session to learn key findings and identify areas for action around equity.

Session Leader: Cecilia Garibay, President, Garibay Group
Science-To-Civics For Climate Hazards and Inequities: Building Community Resilience Through Community Science and Public Deliberation

EXTERNAL COLLABORATIONS, PUTTING COMMUNITY FIRST, AND CO-CREATION

Join dozens of US science centers in engaging diverse publics in data collection and deliberation to build community climate resilience. Experience free virtual tools for engaging publics and civic planners in community science about flooding, extreme heat, and social inequities, and learn about opportunities to organize campaign in your area!

Session Leader: **David Sittenfeld**, Manager, Forums and National Collaborations, Museum of Science

Presenters: **Jeremy Hoffman**, Chief Scientist, Science Museum of Virginia; **Sara Benson**, Museum of Science; **Max Cawley**, Museum of Life and Science; **Caroline Nickerson**, Program Manager, SciStarter

Tags: COMMUNITY IMPACT; SOCIAL JUSTICE; VIRTUAL ENGAGEMENT

The Future Is Now: Broadening Participation in STEM through Digital Fabrication and Making

EXTERNAL COLLABORATIONS, PUTTING COMMUNITY FIRST, AND CO-CREATION

The act of making is inherent to all humans, irrespective of background. As we face the public health crises of systemic racism and COVID-19, we will discuss leveraging this moment to create more equitable entry points for Black, Indigenous, Latinx, and other people of color in fab labs and makerspaces.

Session Leader: **Sonya Pryor-Jones**, Chief Implementation Officer, The Fab Foundation

Presenters: **Stephanie Santoso; Maria Romero**

Tags: MAKING AND TINKERING; SOCIAL JUSTICE; DIVERSITY AND EQUITY

Using Visitor Data with 2020 Vision

EXTERNAL COLLABORATIONS, PUTTING COMMUNITY FIRST, AND CO-CREATION

Feeling lost in 2020? Let visitor data guide the way. In this session, you'll hear other science centers share how they are using visitor data to respond to this year's challenges, from the COVID-19 pandemic to confronting white supremacy and making museums welcoming, safe, and relevant for all.

Session Leader: **Alexander Lussenhop**, Research Associate, Museum of Science

Presenters: **Megan Goekte**, Science Museum of Minnesota; **Carla Herran**, Research & Evaluation Associate, Oregon Museum of Science and Industry; **Ali Jackson**, Director of National Collaborations, Sciencenter

Tags: VISITOR EXPERIENCE; COVID-19; DIVERSITY AND EQUITY
Virtual Outreach Showcase
INFORMAL EDUCATION AND LIFELONG LEARNING

When few schools want in-person programming, you want to bring them outreach online. What's that look like? Can it be interactive, target younger kids, reach schools with limited bandwidth, deal with pricing or security or... This session features the full virtual programs of several centers, and how they did it.

Session Leader: **Jonah Cohen**, Manager of Science Education, McWane Science Center
Presenters: **Amanda Avram**, Denver Museum of Nature & Science; **Julie Danley**, McWane Science Center; **Sarabeth Gordon**, Education Director, Pensacola MESS Hall

Tags: OUTREACH; VIRTUAL ENGAGEMENT; K-12 SCHOOL COLLABORATION

3:00–3:30 p.m. EDT

Explore the Virtual Exhibit Hall

3:30–4:45 p.m. EDT

Community Resilience: Transforming to a more equitable and sustainable future state
EXTERNAL COLLABORATIONS, PUTTING COMMUNITY FIRST, AND CO-CREATION

Four science centers describe how they're building community resilience through innovative partnerships and approaches including efforts to support and engage the public during a time of overlapping crises: climate change, a pandemic, and reckoning with systemic racism. NOAA funds these efforts and will describe its new Theory of Change.

Session Leader: **Carrie McDougall**, Senior Program Manager, NOAA, National Oceanic and Atmospheric Administration

Tags: COMMUNITY IMPACT; SOCIAL JUSTICE; PUBLIC PROGRAMS

Connecting OST Activity Participation to Changes in Female and URM Students' STEM Career Interest
INFORMAL EDUCATION AND LIFELONG LEARNING

Which types and attributes of in-person and online K-12 OST activities are most successful in increasing STEM career interest for female and underrepresented minority students?
Researchers and stakeholders from diverse settings share results and reflect on the implications of a robust study of 15,725 college students' retrospective experiences.

Session Leader: Susan E. Sunbury, Instructional Systems Specialist, Center for Astrophysics | Harvard & Smithsonian
Presenters: Dale McCreedy, VP of Audience & Community Engagement, Discovery Center at Murfrees Spring; Karen Peterson, CEO, National Girls Collaborative Project; Martin Storksdieck, Director, Center for Research on Lifelong STEM Learning, Oregon State University
Tags: Learning Research; Impact Measurement; Diversity and Equity

**Decision-Making During Times of Crisis**  
LEADERSHIP AND PROFESSIONAL DEVELOPMENT

This session invites participants to hear from four established leaders in the science center field as they share their perspectives and challenges navigating major operational decisions, intended and unintended consequences of decisions made, and their own approaches to decision-making.

Session Leader: Lara Litchfield-Kimber, Executive Director, Mid-Hudson Children’s Museum
Presenters: John Anderson; Judy Gradwohl, President & CEO, San Diego Natural History Museum; Joseph P. Cox, President & CEO, Museum of Discovery and Science
Tags: Administration; Business Intelligence; Board Management

**Don't Lose Your "Why": Retain Your Core Purpose as You Adapt**  
BUSINESS OPERATIONS, MARKETING, AND DEVELOPMENT

Whether you're planning a new facility or renovating spaces to adapt to expectations in our changing world, you need effective plans. A strong process can help your science center respond effectively while staying true to your mission. Bring your questions to this interactive workshop designed for everyone considering renovations.

Session Leader: Cassie Carter, Senior Consultant, Campbell & Company
Presenters: Alissa Rupp, FAIA LEED BD+C; Elena Kazlas, Principal, ConsultEcon Inc.; Abby Turner; Frank Steslow, President, Phillip and Patricia Frost Museum of Science; Melissa Kaiser CEO, DISCOVERY Childrens Museum
Tags: Future Planning; Exhibit Design; Fundraising

**Make It! Classroom: Integrating a virtual maker curriculum into Title I elementary schools**  
INFORMAL EDUCATION AND LIFELONG LEARNING

In partnership with local schools, KID Museum delivered a virtual maker curriculum to 3000+ students in grades 3-5 from Montgomery County Maryland's highest need communities. This
presentation will discuss the design and development of the Make it Classroom program, explore tools for virtual maker learning, and reflect on the benefits, challenges and role of "making" in the virtual learning space.

Session Leader: Liza Manfred, Director of Education Strategy and Planning, KID Museum
Presenters: Maya Oliver, KID Museum

Tags: VIRTUAL ENGAGEMENT; K-12 SCHOOL COLLABORATION; MAKING AND TINKERING

Re-envisioning STEM Outreach online, at home, and in the community during Covid-19 and beyond

INFORMAL EDUCATION AND LIFELONG LEARNING

What happens when you have two months to take your in-person outreach program virtual? Learn how two of The Franklin Institute's national outreach programs, Leap into Science and GSK Science in the Summer pivoted to successful at-home and virtual experiences, and how you can get involved in the future.

Session Leader: Tara Cox, Senior Manager of Professional Development, The Franklin Institute
Presenters: Melvina Banti, Assistant Director of Out of School Time Programs, Episcopal Community Services; Andrea Foster, Program Manager, The Franklin Institute; Ryan Thomas Reedell, MakerSPACE Coordinator, Newark Museum of Art

Tags: OUTREACH; SCIENCE EDUCATION; COVID-19

Re-Think, Re-frame, Reopen and Review

CONTENT AND DESIGN

This session will have 3 case studies describing adjustments to science centers and museums to open safely during a pandemic. Small group facilitated discussions allow a deeper dive into the topics and connection with peers. Topics include: health and safety, building operations, hands-on exhibits, and small children spaces.

Session Leader: Ashanti Davis, Exhibition Manager, Fleet Science Center
Presenters: Claire Dorsett, Associate Director of Exhibits, Great Lakes Science Center; Mark Howard Leasor, Experience Manager, Imagination Station Toledo

Tags: DESIGN THINKING; EXHIBIT DESIGN; FACILITIES OPERATIONS

STEM internships in a virtual world: How strategies developed during COVID-19 can inform our future

CONTENT AND DESIGN

Participants will be invited to reflect on how a diverse set of STEM summer internship programs pivoted to be virtual, and consider how we may reimagine the future of STEM internships using lessons learned during the COVID-19 pandemic.
**PIVOT FLASH PRESENTATIONS**

**Digital Makerspaces, the PPE shortage, and the New Grass-roots Design and Supply Chain Solutions**

**EXTERNAL COLLABORATIONS, PUTTING COMMUNITY FIRST, AND CO-CREATION**

Makers and designers across the globe quickly rose to the challenge of producing personal protective (PPE) equipment for COVID-19 frontline workers. Hear the story of three different labs, connected through the Fab Lab network, and how they leveraged the open-source community to develop new designs, supply chains, and distribution plans.

*Presenter: Liz Whitewolf, The Fab Foundation*

*Tags: ADVANCED TECHNOLOGY (AUGMENTED REALITY (AR), VIRTUAL REALITY (VR), ETC.); MAKING AND TINKERING; PARTNERSHIPS*

**Seeing Crises as Opportunities: Moving Your Museum Forward – A Case Study**

**BUSINESS OPERATIONS, MARKETING, AND DEVELOPMENT**

Starting from cell phone video footage to creating a camp studio space, the Center earned 2.5 times our normal revenue on summer camps during the pandemic. From re-imagining the museum's physical space to prioritizing virtual experiences, the Center is confident in staying "open" to the community this upcoming school year.
Turning 30 years of hands-on into hands-off

CONTENT AND DESIGN

What turning, 4,500 square meters of exhibition space, 200 hands-on exhibits, 150 staff and 16 weeks of shut-down into one 90 minute, hands-off immersive theatre experience taught us about ourselves, our visitors and our role as the National Science and Technology Centre of Australia.

Presenter: Anita Beck, QUESTACON, Australia's National Science and Technology Centre

Tags: VISITOR EXPERIENCE; RE-OPENING; ACCESSIBILITY

When Museums and University Campuses are Closed: Moving Internships Online During COVID-19

EXTERNAL COLLABORATIONS, PUTTING COMMUNITY FIRST, AND CO-CREATION

Internships are essential learning experiences for future researchers and leaders. However, the COVID-19 pandemic has forced many museums and universities to discontinue face-to-face internships. In this flash session, learn how a university and a museum are working together to re-imagine a research internship conducted fully online.

Presenters: Tiffany-Rose Sikorski, Assistant Professor, The George Washington University; Colleen Popson, National Museum of Natural History; Rhema Chukwu, The George Washington University; Xinxin Wang, The George Washington University

Tags: PARTNERSHIPS; SCIENCE EDUCATION; VIRTUAL ENGAGEMENT

Family Science Show

Presented by

- Casey Carle, Comic Bubble-ologist
- Matheatre
BY INVITE ONLY: Science Museum Futures “Happy Hour”

This informal session will allow a small group of science museum leaders to discuss current and future plans for meeting the challenges of the 21st century. Hosted by Institute for Learning Innovations.
**TUESDAY, OCTOBER 20, 2020**

All times Eastern Daylight Time. Schedule subject to change.

**11:00–11:30 a.m. EDT**

Explore the Virtual Exhibit Hall

**11:30 a.m.–12:45 p.m. EDT**

**A Crucial Role for Museums: Adapting Programs for Visitors with Developmental Disabilities to Virtual Platforms**

INFORMAL EDUCATION AND LIFELONG LEARNING

Discover opportunities for museums to engage digitally with visitors with developmental disabilities. Explore how access program goals can be adapted for current needs, the array of participation options to accommodate different levels of comfort and ability, and the importance of facilitating socialization in a virtual access program.

Session Leader: **Charlotte Martin**, Senior Manager of Access Initiatives, Intrepid Sea, Air & Space Museum

Presenters: Margaret Gambaro; Sara Thomson; Marie Fazio

Tags: AUDIENCES WITH SPECIAL NEEDS; VIRTUAL ENGAGEMENT; ACCESSIBILITY

**Aligning Your Values with Governance: Investment Portfolios Considering Environment, Sustainability and Governance Factors (ESG)**

BUSINESS OPERATIONS, MARKETING, AND DEVELOPMENT

Science museums hold millions of dollars in endowments. The public, donors, and scientific community have called upon museums to examine their policies and investment choices. Unpacking ESG investing and a case study will provide the facts you need to know to align your mission with action through social impact investing.

Session Leader: **Stephanie Ratcliffe**, CEO, The Wild Center

Tags: ADMINISTRATION; BOARD MANAGEMENT;

**Creating and Maintaining Collaborative Culture During a Crisis: Overcoming the ever-present fear of failure**

LEADERSHIP AND PROFESSIONAL DEVELOPMENT

Panelists share personal stories of attempts to create and/or maintain collaborative culture in the workplace during the COVID-19 pandemic and social justice crisis of 2020. Learn how to
foster diversity of thought and open doors to innovation in the face of disaster and despair. Includes open mic reflective segment.

Session Leader: Christian Deveaux Greer, President and CEO, Michigan Science Center
Presenters: Jennifer A. Barlup, Director of Floor Experiences, COSI; Veronica Garcia-Luis, Project Director/Evaluator, Exploratorium; Gretchen Walker, Vice President, Learning, The Tech Interactive

Tags: Design Thinking; Diversity and Equity; Project Management

In prospect and retrospect: Learning from alums to re-imagine programming for under-represented youth.

Informal Education and Lifelong Learning

Build a network for learning about intensive youth programming during the time of covid-19: What can we learn from each other? What can we learn from alums? What program strategies worked best? How do we find out? How do we share and apply what we learn?

Session Leader: Deborah Wasserman, Senior Research Associate, COSI
Presenters: Christine (Kit) Klein; Priya Mohabir, Vice President, Youth Development, New York Hall of Science; Nicole Webster, Manager of School and Youth Programs, National Museum of Natural History

Tags: Program Evaluation; Teen Programs; Youth Development

Inspiring Practice to Improve an Autistic Visitors Experience

External Collaborations, Putting Community First, and Co-Creation

The session will challenge and inspire you to think differently about audiences with sensory needs, including autism. Sharing lots of ideas and learning, this three-way conversation between David Jones (Life Science Centre, England), Kerrie Highcock (North East Autism Society) and Zoe, an 11-year-old autism advocate, will encourage you to do more.

Session Leader: David Jones, International Centre for Life
Presenters: Kerrie Highcock, North East Autism Society; Zoe King

Tags: Audiences with Special Needs; Community Impact; Diversity and Equity

Let's do better than "back to normal" using the power of "what if"

External Collaborations, Putting Community First, and Co-Creation

Can we do better than "go back to normal"? What would that take? What might it look like? Let's shift from "what is" to "what if"- we'll bring examples and tricky questions, and you'll bring your imaginations. Together, we become agents of change in this uncertain and opportunity-filled time.
Pivoting for Perseverance
INFORMAL EDUCATION AND LIFELONG LEARNING

Panelists will share tales of perseverance during the pandemic. In 2 months, two teams at JPL developed 5 online experiences and three educator workshops, designed to be inclusive for people anywhere in the world, mobile or desktop, parents, students, or educators, to celebrate the Perseverance rover launch and Mars exploration.

Session Leader: Sarah Marcotte, Museum Services Mars Public Engagement, Jet Propulsion Laboratory
Presenters: Ota Lutz; Lyle Tavernier
Tags: GLOBAL PERSPECTIVE; VIRTUAL ENGAGEMENT; TEACHER PROFESSIONAL DEVELOPMENT

Research, Practice and Community: Equitable Partnerships for Impact
EXTERNAL COLLABORATIONS, PUTTING COMMUNITY FIRST, AND CO-CREATION

Are you considering submitting a proposal to the National Science Foundation's Advancing Informal STEM Learning (AISL) program? Join us for a demo of a tool that CAISE, the AISL resource center, has developed to support potential PIs. Explore the issues that proposers grapple with in developing equitable, collaborative research and practice projects.

Session Leader: Jamie Bell, Project Director, Center for Advancement of Informal Science Education (CAISE)
Presenters: Kevin Crowley, Professor of Learning Sciences and Policy, Director UPCLOSE, Childrens Museum of Pittsburgh; Rabiah Mayas, Vice President, Education, Museum of Science and Industry, Chicago; Sarah Garlick, Director of Science Policy and Outreach, Hubbard Brook Research Foundation
Tags: FUNDRAISING; PARTNERSHIPS; GRANT WRITING

Science Communication in Pandemic times
EXTERNAL COLLABORATIONS, PUTTING COMMUNITY FIRST, AND CO-CREATION

This session aims to share exciting initiatives from Science Centres/museums of the ASPAC network on Science Communication during pandemic times. These underscores the importance of how collaborations between Science Centres/museums provide mutual benefit of strengthening the impact of each organization in enhancing the public understanding of science through Science Communication.

Session Leader: Song Choon Lee, Science Centre Singapore
Presenters: Tit Meng Lim, Chief Executive, Science Centre Singapore; Ganigar Chen, Vice President, National Science Museum, Thailand; Yasushi Ikebe, Principal Investigator for
Transformation from the Outside In: How Community Outreach Can Drive Systemic Change

EXTERNAL COLLABORATIONS, PUTTING COMMUNITY FIRST, AND CO-CREATION

The discussion on diversity, equity, and inclusion in science education has focused on community outreach programs targeting racialized or marginalized communities. Indigenous, Black, or People of Color panelists will discuss challenges experienced and change management strategies employed to break through the tokenism of community outreach to affect internal systemic change.

Session Leader: **Wendy Ng**, Manager School Programs, Ontario Science Centre
Presenters: **Shihadah Shay Saleem**; **Amber Sandy**, Indigenous Knowledge and Science Outreach Coordinator, Ryerson University; **Dennis Mabasa**, Assistant Manager of Youth Engagement, California Academy of Sciences

Tags: **COMMUNITY IMPACT; DIVERSITY AND EQUITY; INCLUSIVE WORKFORCE DEVELOPMENT**

WTF 2020. Canadian perspectives during a time of disruption

EXTERNAL COLLABORATIONS, PUTTING COMMUNITY FIRST, AND CO-CREATION

Join us as we explore What the Future holds from CEO’s across Canadian Science Centres, Museums, and Zoos. We will explore priority areas they are addressing during 2020 such as: COVID-19 Pandemic; Social change; Diversity, equity, and inclusion; Climate change and biodiversity loss.

Session Leader: **Marianne Mader**, CEO, Canadian Association of Science Centres

Tags: **COVID-19**  **DIVERSITY AND EQUITY**  **COMMUNITY IMPACT**

Poster Palooza

A list of poster presentations is available, beginning on p. 37.
1:45–2:15 p.m. EDT

Explore the Virtual Exhibit Hall

2:15–3:30 p.m. EDT

Aligning Your Values with Governance Part II: Unpacking Social Impact Investing Principles and Divesting Strategies

Nonprofit organizations are no longer limited to achieving missions through programming alone. Increasingly, investment committees look to their sizable endowments to affect social change by investing in companies that align with their values. This session will address what goes into constructing a portfolio considering environment, social and governance factors.

Session Leader: Stephanie Ratcliffe, CEO, The Wild Center; Wally Burlack, Board Chair, Phipps Conservatory

Tags: ADMINISTRATION; BOARD MANAGEMENT;

Considering the Professional Learning Needs of Your Staff During and Post COVID-19

The pandemic has museum leaders and managers reimagining the skills, behaviors and competencies needed for themselves and their teams and how to develop those skills. The Informal STEM Learning Professional Competency Framework team will show how the ISL Framework can be a useful tool to address these complex issues.

Session Leader: Lesley Markham, Senior Manager of Impact Initiatives, ASTC

Presenters: Andy Aichele, Senior Director of Organizational Learning & Development, COSI; Dennis Schatz, Senior Advisor and ASTC Fellow, Pacific Science Center; Kris Morrissey, Researcher; Joseph Heimlich, Senior Director of Research, COSI; Cathlyn D. Stylnski, Senior Agent; Nancy Staus; Martin Storksdieck, Director, Center for Research on Lifelong STEM Learning, Oregon State University

Tags: 21st CENTURY SKILLS; HUMAN RESOURCES/STAFFING; FUTURE PLANNING

Creating a welcoming, equitable and safe visitor experience through data visualization and social science

This session explores the development of the Walker's pandemic opening plan, designed by a team using data analytics, visualization tools, and real-time human behavior. The session highlights how to use experiential, operational, technological and physical design tools to
meet consistently changing environments and provide a safe and seamless museum experience.

Session Leader: Marc L'Italien, Principal, HGA Architects and Engineers
Presenters: Joan M. Soranno FAIA; Nisa Mackie; David Goldstein; Ada Mestad

Tags: ADVANCED TECHNOLOGY (AUGMENTED REALITY (AR), VIRTUAL REALITY (VR), ETC.); ADMINISTRATION; ADULT ENGAGEMENT

From Clean Rooms to COVID Research: Reimagining the Educational Experience in Unprecedented Times
INFORMAL EDUCATION AND LIFELONG LEARNING

How can youth interact safely in an educational setting? How do you translate authentic research using the inspiration of space exploration while engaging audiences through remote applications? Space Center Houston and NASA educators reimagined summer camps, camps-ins, and youth internships. Join us to plan creatively for virtual and socially-distant programs.

Session Leader: Kaci Heins, Education Manager, Space Center Houston
Presenters: Daniel Newmyer, Vice President of Education, Space Center Houston; Margaret Baguio; Celena Miller

Tags: COVID-19; VIRTUAL ENGAGEMENT; SCIENCE EDUCATION

Future-proofing Your Museum: Bold Experiments and Game Changers
BUSINESS OPERATIONS, MARKETING, AND DEVELOPMENT

It's 2020, and a whole lot has changed in the world. Museums need to adapt to the evolving needs of visitors and members, and seek new business models that will ensure long-term financial sustainability. Hear about bold experiments that have led to new opportunities for audience development and recurring revenue.

Session Leader: Rosie Siemer, CEO, FIVESEED
Presenters: Mitchell Sava, Vice President of Innovation & Learning, Museum of Life and Science; Sarah Owens, Membership Manager, Exploratorium

Tags: FUTURE PLANNING; PROTOTYPING AND PILOTING; VIRTUAL ENGAGEMENT

Museums and Race Report Card: Reimagining the Future of Science Museums
EXTERNAL COLLABORATIONS, PUTTING COMMUNITY FIRST, AND CO-CREATION

Many science museums are questioning how to move forward, especially with the heightened focus around race, diversity, inclusion, and representation. During this session, we identify opportunities for continued growth and forward momentum by introducing a tool to aid your leadership, board, and institution in setting goals around Museums and Race.
Navigating Big Change: Life After Your Layoff
LEADERSHIP AND PROFESSIONAL DEVELOPMENT
Getting laid off hurts. It can make you doubt your decisions, your abilities, and your workplace relationships. Hear from industry veterans who have been laid off and how they dealt with everything that followed. Join us for an honest and raw conversation about being laid off and all that follows.

Session Leader: Joe Imholte, Vice President of Programs and Operations, The Bakken Museum
Presenters: Whitney Owens, Chief Learning Officer, Cincinnati Museum Center; Marcus A. Harshaw, Senior Director of Museum Experience, Carnegie Science Center; Jennifer Martin, Freelance CEO

Tags: WOMEN IN LEADERSHIP; HUMAN RESOURCES/STAFFING; TALENT MANAGEMENT

Pandemic Pivot: Moving from Onsite to Online in a Time of Turmoil
CONTENT AND DESIGN
Learn how Ontario Science Centre and The Tech Interactive have adapted to reach their respective audiences during the pandemic, including successes, failures and iterations. Find out how they leveraged cross-functional collaborations to create and market virtual programming and hear about their plans to continue to engage audiences online after reopening.

Session Leader: Erica Barrueto, Senior Director Bowers Institute, The Tech Interactive
Presenters: Fotini Fokidis; Andrea Mus, Ontario Science Centre; Sierra LaDuke, Social Media Manager, The Tech Interactive

Tags: SCIENCE EDUCATION; MARKETING; VIRTUAL ENGAGEMENT
Resource Hour Discussion: Operating with Reduced Staff & Resources During a Pandemic
SPONSORED BY HANDS ON! STUDIO
2:15-3:30 p.m. EDT

Hands On! will host a discussion and Q&A on lessons learned and strategies on topics ranging from revenue streams and engagement models, revising grant project work plans and visitor experiences with these panelists: Sam Dean, Executive Director, Amazeum, Cass Barbour, Project Manager, Sciencenter Ithaca & Starr Peters, Senior Manager of Exhibits, Kentucky Science Center.

3:30–5:00 p.m. EDT

New Frontiers Keynote Session

This multi-part session will include several speakers and discussions on the way that science, communities, and policymakers work in partnership to address humanity’s most pressing challenges, while ensuring that public engagement in science is an integral and essential part of this conversation.

The New Frontiers Keynote session is held jointly with the New Frontiers Virtual Summit, which is generously supported the Richard King Mellon Foundation, The Grable Foundation, and the Claude Worthington Benedum Foundation.
“A Fireside Chat on Solving Our Big Challenges”

This fireside chat will focus on how solutions-focused research and development might drive breakthroughs for a wider range of societal challenges, including public health, climate, education, and social policy.

Chat participants will include:

- **Dr. Arati Prabhakar**, founder and CEO of Actuate and former director, Defense Advanced Research Projects Agency

- **Sonal Shah**, founding executive director, Beeck Center for Social Impact + Innovation and professor, Georgetown University; founding director, White House Office of Social Innovation and Civic Participation

**Expert Panel on Health Innovation and Security**

Details to come

**Featured Remarks on Race and Technology**

- **Dr. Ruha Benjamin** will deliver remarks on the urgency of addressing the intersection of race and technology to ensure we create a more equitable tomorrow.

5:00–6:00 p.m. EDT

**Networking Event**

Details to come
The Alan J. Friedman Science Center Dialogues are conducted in memory and tribute to the founding director of the New York Hall of Science, Queens. The Friedman Dialogues—sponsored by The Kavli Foundation—connect science-center professionals, science educators, and science communicators to timely and thought-provoking issues emerging in science and society. The session is presented in the spirit of the commitment Alan had to the science-center field and the issues and interests that were reflected in his own writings and presentations over the years.

This year’s 2020 Friedman Dialogues will focus on the role of public engagement in science for combating misinformation and building community capacity for solving problems. We hope to foster an engaged discussion about how scientists, science-engagement professionals, public officials, and community members can more effectively engage the public in science—and how public engagement will not only help combat misinformation, but also strengthen the relationship between communities and science, and therefore develop community-level agency to leverage science to solve problems and create opportunity.

Dialogue Moderator and Discussion Catalyst:

**Dr. Sara Yeo**, Associate Professor, Department of Communication, University of Utah

Dialogue Participant:

**Dr. Sudip Parikh**, Chief Executive Officer of the American Association for the Advancement of Science (AAAS) and Executive Publisher of the Science family of journals

Dialogue Participant:

U.S. Senator **Sheldon Whitehouse**
12:15–1:00 p.m. EDT

Explore the Virtual Exhibit Hall

1:00–2:15 p.m. EDT

**CEO Session: Advancing Organizational and Community Priorities Around Equity and Inclusion**

LEADERSHIP AND PROFESSIONAL DEVELOPMENT

This is an opportunity to go deep on the next steps for your organization's approach to becoming a more welcoming and inclusive organization and supporting your community's priorities in equity and social justice. Whether you are working to deepen your internal and staff work on equity, working to craft a public statement on equity and inclusion, or working to engage your community in support of their priorities to address social injustices, this session will offer breakouts to help you connect with other science and technology center and museum executives and trustees to share insights and identify the next steps for your organization. This session will be led by CCLI (Cultural Competence Learning Institute). *For science and technology center and museum chief executives and board/trustees only.*

Presenters:  Jenni Martin, Director of Strategic Initiatives, Children’s Discovery Museum of San Jose; Cecilia Garibay, Garibay Group; Laura Huerta Migus, Executive Director, Association of Children’s Museums

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**Creating Middle Ground: Transforming Urban Outdoor Spaces with Social Science Exhibits and Facilitation about Biases**

EXTERNAL COLLABORATIONS, PUTTING COMMUNITY FIRST, AND CO-CREATION

Pull up a chair to learn about Middle Ground, a facilitated exhibition project that stands at the intersection of social science, social justice, place-making and research on informal learning. We'll describe the exhibition's content of bias and stereotyping, facilitation by formerly incarcerated community members, and research results on facilitation's impact.

Session Leader:  Joshua Gutwill, Director of Visitor Research, Exploratorium
Presenters:  Hsin-Yi Chien, Exploratorium; Louie Hammonds; Robert Dixon

Tags:  COMMUNITY IMPACT;  LEARNING RESEARCH;  DIVERSITY AND EQUITY

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**Facing Change: Planning for Inclusive Boards**

LEADERSHIP AND PROFESSIONAL DEVELOPMENT

Is your board seeing this moment of twin pandemics—COVID and Racial Injustice—as an imperative to creating a culture of inclusion? Join Fellows from AAM's Facing Change initiative
to share your vision and challenges in this work and hear about how museums across the U.S. are facing change.

Session Leader: **Ann Hernandez, Space Center Houston**
Presenters: Levon Williams; Danielle Linzer

**Tags:** BOARD MANAGEMENT; INCLUSIVE WORKFORCE DEVELOPMENT; DIVERSITY AND EQUITY

## Making the Case Together as a Sector

**LEADERSHIP AND PROFESSIONAL DEVELOPMENT**

The COVID-19 pandemic has made it clear why communities and elected officials must understand how science and technology centers and museums serve as community anchors and economic engines.

Session Leader: **Melissa Ballard, Senior Manager of Public Policy and Advocacy, ASTC**
Presenters: Tracey Collins, Interim Director of Education and Community, Natural History of Utah; Nick Hoffman, Education Programs Supervisor, Clark Planetarium; Lisa Levine Urovitch, Government Relations Director, Museum of Science

## Petrosains Design Thinking Process Appetizer Workshop: A Structured Approach to Design Thinking

**BUSINESS OPERATIONS, MARKETING, AND DEVELOPMENT**

The Petrosains Design Thinking Process is a tool, used to problem solve via actionable and tangible solutions that are people. It's a human-centric, iterative process that uses the strength of multi-disciplinary teams and co-creative processes to reshape, rethink, and reimagine products, services, and processes.

Session Leader: **Huey Chyun Foo**
Presenters: Nensirati Supahan, Learning Specialist

**Tags:** DESIGN THINKING; PROTOTYPING AND PILOTING; FUTURE PLANNING

## Public Interest Technology Community Innovation Fellowship: Innovations from Shifting to Virtual Public Dialogue Forums

**EXTERNAL COLLABORATIONS, PUTTING COMMUNITY FIRST, AND CO-CREATION**

Fellows will describe the innovative methods they used to shift the public dialogue forums they co-created with a community partner to a virtual environment.
Shut up and Drive: The Risks and Rewards of Letting Teens take the Wheel
INFORMAL EDUCATION AND LIFELONG LEARNING

As society and culture continue to evolve, our museums and programs must too. We've learned to shut up, buckle up, put our youth in the driver's seat and hand over the keys (and the power and control that comes with it), all for the sake of reaching New Frontiers.

Session Leader: Abigail Sewnauth, New York Hall of Science
Presenters: Amy Henson, Staff Scientist, Science North; Andrea Motto, Manager of Public & Youth Engagement, Yale Peabody Museum of Natural History

Tags: YOUTH DEVELOPMENT; TEEN PROGRAMS; DIVERSITY AND EQUITY

The Diversity & Inclusion Clinic
EXTERNAL COLLABORATIONS, PUTTING COMMUNITY FIRST, AND CO-CREATION

The Diversity and Inclusion Clinic is a safe space for those who are interested in creating institutional change, and committed to shift the internal culture, towards social inclusion in your institution. Bring a burning challenge, and participate in peer consultations led by the DiverSci Mentors, and passionate people like you

Session Leader: Amparo Leyman Pino, Education Consultant
Presenters: Barbara Streicher; Vanessa Mignan; Antonia Caola, Head of Communication and International Collaborations, MUSE - Museo Delle Scienze

Tags: DIVERSITY AND EQUITY;

The IF/THEN® Initiative: Grants and Resources for Ensuring Equitable Gender Representation in Your Museum Content
CONTENT AND DESIGN

Learn about the IF/THEN® Initiative designed to help museums ensure equitable gender representation in STEM! Resources include the Gender Representation Toolkit (an evaluation tool) and the IF/THEN® Collection, a free library of photos. Hear preliminary results from a field-wide analysis of gender representation in museums, and information on upcoming Grants.

Session Leader: Amanda Fisher, Manager of Gender Equity Initiatives, ASTC
Presenters: Karen Peterson, CEO, National Girls Collaborative Project

Tags: DIVERSITY AND EQUITY; GRANT WRITING; EXHIBIT DESIGN
BROADENING REPRESENTATION FLASH SESSION

A Novel Approach: Engaging Middle-Schoolers with COVID Through Data and Story

Informal Education and Lifelong Learning

Learn how the Museum of Science, Boston, launched a Zoom science book club with a book and data activities designed to inform middle school students about the COVID pandemic while attending to their social and emotional concerns. This will be an introductory how-to session with the opportunity to learn more.

Presenter: Pendred E Noyce, Student

Tags: COVID-19; Prototyping and Piloting; Member Engagement

Announcing the Decolonizing Science Film Project

External Collaborations, Putting Community First, and Co-Creation

Filmmaker Kendall Moore describes how interviews on belonging in STEM led her to a new project: examining cases in which museums are reckoning with the erasure and marginalization that western science has practiced toward Other ways of knowing. Participants are invited to pose questions and contact Moore with relevant examples.

Presenters: Martha Merson, Project Director, TERC; Kendall Moore

Tags: Diversity and Equity; Racial Justice; Racial Justice

Reflections on a Social Media Campaign of Intentional Representation to Combat Biases in STEM

External Collaborations, Putting Community First, and Co-Creation

The STEMinista Project embarked on a three-pronged virtual approach to bring awareness to the diversity of women in STEM fields, intentionally focusing on women of color. This Flash session will share what we did and the impact on participants, role models, and staff who took part in the programs.

Presenters: Cassie Byrd, Chief Learning Officer, Michigan Science Center; Andrea Harp, Community Partnership Manager, Michigan Science Center; Emi Katherine Mitsusada-Boylan, STEMinista Project Program Coordinator, Michigan Science Center

Tags: Diversity and Equity; Social Media Engagement; COVID-19

Continued...
Social Enterprising Pilot: Ontario Science Centre's RBC Innovators' eAuction - Open Call for Art

BUSINESS OPERATIONS, MARKETING, AND DEVELOPMENT

Social Enterprising Pilot: In response to the impacts of COVID-19, the Ontario Science Centre aims to include Black, Indigenous, People of Color, LGBTQ2S+ and low income communities in the sharing of our platform for fundraising, through open call for artwork inspired by science for the RBC Innovators' eAuction.

Presenters: Ana Klasnja, Sr. M. Producer, Ontario Science Centre; Shannon Persaud Tolnay, Head, Events and Donor Communications, Ontario Science Centre

Tags: BUSINESS DEVELOPMENT; INCLUSIVE WORKFORCE DEVELOPMENT; FUTURE PLANNING

2:15–2:45 p.m. EDT

Explore the Virtual Exhibit Hall

2:45–4:00 p.m. EDT

Closing Keynote

“Long-term thinking amid crisis: Insights from the Optimist’s Telescope”

Bina Venkataraman, Editorial Page Editor, The Boston Globe; Fellow, New America
Poster Palooza
To be held Tuesday, October 20, 12:45–1:45 p.m. EDT

A Study on Main Drives of Mathematical Research in Kyungpook National University after 1945
In many cases, general audiences are not familiar with excellent scientists in their own region. In this session, researchers in science museums will learn useful knowledge about how to find out good regional scientists and how their works could be done in their own regional environment.
Poster Presenters: Hyeong-gu Kang, Researcher, Daegu National Science Museum; Manyong Moon
Tags: COMMUNICATIONS COMMUNITY IMPACT HUMAN RESOURCES

Addressing Societal Issues Through STEM
This poster on Addressing Societal Issues Through STEM is a research synthesis summarizing the topics addressed, the lessons learned, and the opportunities for ISL institutions to engage the public in understanding and responding to the grand societal issues of our time. The research is funded by NSF and conducted by Knology.
Poster Presenter: Kris Morrissey, Researcher
Tags: COMMUNITY IMPACT FUTURE PLANNING SOCIAL JUSTICE

Asking the Experts: Collaborating authentically with Diverse Young Adults to Design Outdoor Learning Experiences
The National Parks Science Challenge is an effort to facilitate diverse young adults' engagement in urban national parks. Youth advisory groups from two parks were gathered over two years to provide input, share experiences, and direct the development of new youth programming. Analysis of these preliminary findings will be shared in this poster.
Poster Presenter: Monae Verbeke, Senior Research Associate
Tags: DIVERSITY AND EQUITY TEEN PROGRAMS YOUTH DEVELOPMENT

Building "Science Community" is a Key Component of Informal STEM Interventions for African Americans
What do we know about the ways in which informal STEM influences African Americans to envision themselves as scientists, engineers, or technologists? This poster identifies studies of informal STEM interventions that may help the field better understand how informal STEM can lead to greater African American involvement in STEM professions.
Poster Presenters: Mwenda O. Kudumu, Doctoral Student, North Carolina State University
Tags: DIVERSITY AND EQUITY OUTREACH TEEN PROGRAMS
Building Rural Networks: Leading with relationships and supporting with science

The Climate and Rural Systems Partnership is a network that connects educators, scientists, and community leaders to address climate change in Western Pennsylvania. We describe the early stages of the research-practice partnership driving the project, providing examples of how a diverse network can take climate conversations in new directions.

Poster Presenters: Laurie Giarratani, Director of Education, Carnegie Museum of Natural History; Lauren Horner, Carnegie Museum of Natural History; Mandi Lyon, Program Development Coordinator, Carnegie Museum of Natural History; Jacqueline McCullough, Mercer County Conservation District; Mary Ann Steiner, Steiner Learning Design

Tags: COMMUNITY IMPACT PARTNERSHIPS SCIENCE EDUCATION

Can Small Museums Create Big and Unique Exhibits? A WOW Test Case...

The World of Wonders' moon walking exhibit is a unique exhibit that simulates reduced gravity and enables an inclusive, full-body experience. We will describe the challenges, process, benefits, and impact of creating such an exhibit for a small museum.

Poster Presenters: Uri Griner, World of Wonders Science Museum

Tags: EXHIBIT DESIGN SMALL MUSEUMS

CerebroEDU: Education and family engagement around brain health in Latinx communities

This NIH funded pilot project creates afterschool programming on brain health for Latinx middle school students. Get introduced to free resources including short videos of Latinx neuroscience and mental health STEM professionals, an activity guide, a guide for engaging Latinx Families, and strategies for creating culturally responsive STEM programming.

Poster Presenters: Katie Hessen, STEM Content & Outreach Specialist, Twin Cities PBS; Leah Defenbaugh, Twin Cities PBS

Tags: DIVERSITY AND EQUITY K-12 SCHOOL COLLABORATION SCIENCE EDUCATION

Collaborating with Schools and Members in the Program Design Process

Educators from the Museum of Life and Science will review the design process for a new school program that featured game design and full campus integration. STEM Days became a unique experience and its inception relied upon the collaborative relationship between Durham Public Schools and museum members.

Poster Presenters: Jenna Gant, Associate Program Manager, Museum of Life and Science; Tomara Gee, Associate Program Manager, The Lab, Museum of Life and Science; Carly Apple, Museum of Life and Science

Tags: K-12 SCHOOL COLLABORATION PARTNERSHIPS SCIENCE EDUCATION
Creating a Space for STEM at the National Museum of African American History and Culture

This presentation will share the establishment process of a STEM program at the National Museum of African American History and Culture. The audience will be able to identify the programs, partnerships, and strategies NMAAHC uses to lead the world in viewing history and STEM through the African American lens.

Poster Presenter: Christopher Williams, STEM Education Specialist, National Museum of African American History and Culture

Tags: PARTNERSHIPS SCIENCE EDUCATION TEACHER PROFESSIONAL DEVELOPMENT

Creating a VR Experience for Kids: Getting on the future bandwagon responsibly

Virtual reality (VR) is popping up everywhere, yet it may not be appropriate for kids. Headsets are rated for ages 13 and up. An equitable future includes safe access to technology. Attendees will play with our proposed solution to a VR/AR exhibit and participate in a discussion on safe solutions.

Poster Presenters: Meredith Doby, Vice President of Exhibits, The DoSeum; Richard Kissel, Vice President, Education, The DoSeum

Tags: 21ST CENTURY SKILLS ADVANCED TECHNOLOGY (AUGMENTED REALITY (AR) VIRTUAL REALITY (VR)

Current Practices in Distance Learning in Museums

This poster will showcase the results of a nationwide study examining the current state of distance learning in museums. Learn how museums reach off-site visitors, the technology they are leveraging, their target audiences, how the programs are run, and who is responsible for the development and implementation of these programs.

Poster Presenter: Megan Ennes, Assistant Curator of Museum Education, Florida Museum of Natural History

Tags: ACCESSIBILITY EMERGING TECHNOLOGY OUTREACH

Design Squad Maker: Development of museum-based experiences to support children's design process

In this design-based research project, WGBH and the New York Hall of Science are examining how museums, makerspaces, and digital media can support children in pursuing design projects outside of school. This poster will share findings from iterative development of museum-based design thinking workshops for children ages 8-11 and their families.

Poster Presenter: Suzy Letourneau, Research, New York Hall of Science

Tags: DESIGN THINKING MAKING AND TINKERING PROTOTYPING AND PILOTING
Developing a Program Model for Teen Science Research, Communication, and Education Experiences in a Living Laboratory

In collaboration with Boston University, the Museum of Science has developed a teen program that engages students in experimental psychology research, science communication, and education activities. This poster shares evaluation strategies used to assess teen science identity formation and core program elements, and how these findings have informed program iteration.

Poster Presenter: Rachel Fyler, *Education Associate, Museum of Science, Boston*

Tags: **Partnerships**  **Program Evaluation**  **Teen Programs**

Developing a Public Policy Strategic Plan for Your Science Center

Science centers in the U.S. can actively affect public policy at the national, state, and local levels. This poster explores how one science center developed a public policy strategic plan, and shares how other science centers can do the same.

Poster Presenter: Kalie Sacco, *Chief of Staff, Lawrence Hall of Science*

Tags: **Community Impact**  **Future Planning**  **Making the Case for Science Centers**

Embedding an Eco-Responsible Approach in Our Day to Day Work

For the past 10 years at Universcience in France, we have been experimenting with embedding sustainability at the core of what we do. It is time to look at what has worked, what hasn’t worked, and where we go next.

Poster Presenter: Raphael Chanay, *Universcience*

Tags: **Exhibit Design**  **Sustainability**

Engineering Explorations: Linking schools and science centers to increasing students capacities to solve engineering challenges

Engineering Explorations are learning modules that combine museum field trip experiences with pre- and post- activities done in K-8 classrooms. These modules align with the learning goals of informal spaces that include engaging, hands-on learning as well as school-based expectations of the Next Generation Science Standards (NGSS).

Poster Presenters: Danielle Harlow, *Associate Professor, University of California, Santa Barbara; Ron Skinner, MOXI, The Wolf Museum of Exploration and Innovation*

Tags: **K-12 School Collaboration**  **Partnerships**  **Science Education**

Experiences and Perceptions of Science Museums Among Latinx Adult Immigrants with Limited Education

Explore findings from surveys conducted with a community-based sample of Latinx immigrants living in North Carolina with limited education about science museum attendance, barriers to attending science centers, and knowledge about science center behavioral norms. The research findings could help science and technology centers improve outreach to underserved populations.
External Collaborations of the Antibiotic Resistance Exhibition

This poster will introduce how to make external collaborations were made on an exhibition on antibiotic resistance in order to increase community impact, connect science and society, engage diverse audiences, and partner to solve global and local challenges; antibiotic resistance.

Poster Presenter: Jihye Lim

Tags: COMMUNITY IMPACT PUBLIC PROGRAMS TEMPORARY AND TRAVELING EXHIBITS

For the Community by the Community: Fostering local partnerships to create meaningful forum discussions

Discover how to blend the wants and needs of community, civic, and local partners to host a successful forum discussion rooted in actionable community concerns. Data collected from forum participants and facilitators will help conference attendees explore how local topics may foster engagement among communities.

Poster Presenters: Emily Hostetler Forum Education Associate II, Museum of Science, Boston; Janine Myszka, Museum of Science, Boston; Kimberly Lucas, City of Boston; Caitlin Callahan, Urban College of Boston; Carmen Pineda, Urban College of Boston; Marguerite Fenwood, Tufts Medical Center; Jonathan Garlick, Tufts University; Marta Beyer, Research & Evaluation Associate, Museum of Science, Boston; Sunewan Chunhasuw Paneto, Research Assistant, Museum of Science, Boston

Tags: COMMUNITY IMPACT PARTNERSHIPS PUBLIC PROGRAMS

Gamifying Informal Learning: A case study of designing an educational escape game to communicate STEM

This poster presents a case study at Petrosains in working with the concept of gamification to design an informal learning activity in the form of an escape room at the science center.

Poster Presenter: Huey Chyun Foo, Petronas

Tags: DESIGN THINKING EXHIBIT DESIGN PROTOTYPING AND PILOTING

Ham Radio Operators Help Inspire the Next Generation of DIYers

Kopernik Observatory shows concrete examples of how DIYers like ham radio operators can provide technical expertise to your exhibits and classes. Videos from International Space Station (ISS) ham radio contacts and actual flight hardware from high altitude weather balloon flights will be available for examination and discussion.

Poster Presenter: Andrew Deskur, Executive Director, Kopernik Observatory and Science Center

Tags: 21ST CENTURY SKILLS ADVANCED TECHNOLOGY (AUGMENTED REALITY (AR), VIRTUAL REALITY (VR), ETC.)
**Immersive Technology and Evaluation 101**

This poster will explore the journey undertaken by the researchers on a research and development project featuring immersive mixed-reality technology to find the most suitable methodologies. Starting from previous experiences and the growing body of knowledge around evaluation of new technologies, it will highlight the experiences and learning emerging from these experiences.

**Poster Presenters:** Desiree Vaccarini, Audience Researcher, The Natural History Museum; Bethan Ross, Science Museum

**Tags:** Advanced Technology (Augmented Reality (AR), Virtual Reality (VR), etc.)  Exhibit Design

**Indicators of Social Appropriation of Science**

We present the different stages of the development of indicators on social appropriation of science attuned to the strategic goals of the Parque Explora organization, and the principal findings of the research process to date.

**Poster Presenters:** Juliana Murillo, Parque Explora

**Tags:** Learning Research  Program Evaluation  Science Education

**It Takes a Village: Finding Common Ground Among Stakeholders**

NCSE is providing hands-on STEM activities through a partnership with Duquesne University and the Carnegie Library of Pittsburgh. This project serves as a case study of managing nonprofit, academic partner, and informal science center priorities to develop a flexible and inclusive community solution that can serve as a national model.

**Poster Presenters:** Michelle M. Valkanas

**Tags:** Outreach  Science Education  Working with Higher Education

**Making the Microscopic Tactile: Open source 3D models for science education**

Microorganisms are tremendously important to our world, but difficult to teach about using hands-on approaches. Smithsonian's National Museum of Natural History is making available digital files for 3D virus models that disassemble. These files are available free of charge and will support learning in educational settings around the world.

**Poster Presenter:** Ashley Peery, Smithsonian’s National Museum of Natural History

**Tags:** Outreach  Science Education

**Meet the World's Second Oldest Stone Star Map, Cheon-Sang-Yeol-Cha-Bun-Ya-Ji-Do, at the Planetarium**

On the Cheon-Sang-Yeol-Cha-Bun-Ya-Ji-Do stone star map, constellations are no longer recognized as constellations in the night sky but as dots and lines carving in the black stone. We have projected the Cheon-Sang-Yeol-Cha-Bun-Ya-Ji-Do on a dome screen so that we could observe it as if we were looking at the sky.
NASA Resources for You!

NASA drives advances in science, technology, aeronautics, and space exploration to enhance knowledge, education, innovation, economic vitality, and stewardship of Earth. Learn how science centers and museums can work collaboratively with NASA STEM Engagement and other organizations to engage your visitors and community.

Poster Presenters: Amelia Chapman, Education Program Specialist, NASA Jet Propulsion Laboratory; Leslie L. Lowes, Informal Education Specialist, NASA Jet Propulsion Laboratory; Beverly Girten, NASA

Tags: Inclusive Workforce Development, Public Programs, Small Museums

Out & About: Evaluating critical thinking and habits of mind in an Orb Weaver exhibit

This poster describes a community-engaged project conducted by graduate students in partnership with a local science museum. The project evaluated critical thinking skills and Habits of Mind displayed by museum visitors and identified interventions to encourage these skills. It has the potential to be scaled across the science education field.

Poster Presenters: Mwenda O. Kudumu, Doctoral Student, North Carolina State University; Ashley Smalls, North Carolina State University; Megan Morin, North Carolina State University; Max Cawley, Associate Program Manager, Learning Philosophy and Evaluation, Museum of Life and Science; Michele Kloda, Director of Learning Environments, Museum of Life and Science; KC Busch, North Carolina State University

Tags: Exhibit Design, Program Evaluation, Working with Higher Education

Redefining the Narrative: A rural-urban climate conversation

The Climate and Rural Systems Partnership is a learning network that connects and empowers Western Pennsylvania educators, scientists, and community leaders to address climate change issues with rural audiences. This poster outlines strategies and describes initial efforts to support equitable climate conversations that build cultural competency across the urban-rural divide.

Poster Presenters: Laurie Giarratani, Director of Education, Carnegie Museum of Natural History; Nicole Heller, Carnegie Museum of Natural History; Jay Russell, Mercer County Conservation District; Bonnie McGill, Carnegie Museum of Natural History

Tags: Partnerships, Project Management, Sustainability

Remote Sensing Displays: New ideas and opportunities for environmental and community engagement

This poster presentation provides visuals and data from an education, research, and citizen science initiative aimed at exploring new educational, exhibition design, and online engagement possibilities. The project uses new, low-cost, accessible credit-card size computers and remote sensing technology to increase community impact.
Poster Presenter: **Sarah Choukah**, *Adjunct Faculty Member, York University*

**Signing Glossaries for Visitors Who Are Deaf or Hard of Hearing**

This poster highlights innovative features of signing glossaries designed to enhance access for visitors who are deaf or hard of hearing to aquariums, botanical gardens, natural history museums, nature centers, science museums, and zoos. It shows use of the glossaries and provides insight into how to integrate them into venues.

Poster Presenter: **Judy Vesel**, *Principal Investigator, TERC*

**Teens Learning Climate Science Using A Realistic NASA Climate Model**

We detail a peer-reviewed high school/college curriculum for informal/formal settings where students learn climate science by using a NASA climate model.

Poster Presenters: **Drew Bush**, *Director of Programs, Fairbanks Museum*; **Brian Levine**, *Youth Programs Manager & Astrophysics Educator, American Museum of Natural History*

**The Ultimate STEAM Experience: Incorporating a clay program into early childhood maker education**

Clay is the ultimate STEAM experience: combining art with earth science, chemistry, geometry, construction, and equipment using technology. Learn how to introduce clay into your regular or maker programming; the type of space, equipment, and tools required; and the opportunities for educational enrichment, additional revenue, and member retention.

Poster Presenter: **Alexandra Pearson**, *Maker Shop Coordinator, Knock Knock Children’s Museum*

**Universities and Science Centers Working Together to Support Scientists in Public Engagement Work**

Leaders from the Portal to the Public and Partnerships for Broader Impacts Design projects will reflect on the last three years of work connecting the university-based Broader Impacts community with informal science learning organizations.

Poster Presenters: **Eve Klein**; **Ann McMahon**, *University of Washington*; **Michelle Kortenaar**, *Sciencenter*

**What Do Students Really Think About Scientists? And Can We Influence It?**

This poster will share research methodologies and conclusions from a recently completed study that investigated whether live-streamed, interactive webcasts featuring STEM role
models are able to positively influence students' interest in science, perceptions of scientists, and interest in science careers.

**Poster Presenters:** Margaret Benson, *Distance Learning Manager, Smithsonian's National Museum of Natural History; Colleen Marzec, Chief of Science Learning and Content Development, Smithsonian's National Museum of Natural History*

**Tags:** **LEARNING RESEARCH** **PROGRAM EVALUATION** **SCIENCE SHOWS**

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**xMacroscope! A Tool for Data Visualization Literacy**

The xMacroscope is a new technology platform, designed as a learning tool that helps visitors create, view, and interact with uncurated data sets. The platform employs a novel data visualization literacy framework that supports the visual encoding of complex data and a process for scaffolding data visualization literacy.

**Poster Presenters:** Elizabeth Record, *Associate Director, Indiana University Cyberinfrastructure for Network Science Center; Katy Borner, Director, Indiana University Cyberinfrastructure for Network Science Center; Joseph Heimlich, Senior Director of Research, Center of Science and Industry, COS; Bryan Kennedy, Director, Exhibit Media, Science Museum of Minnesota; Kylie Peppler, University of California Irvine*

**Tags:** **EMERGING TECHNOLOGY** **LEARNING RESEARCH** **PROTOTYPING AND PILOTING**
Exhibitors
As of October 11, 2020

American Alliance of Museums
https://www.aam-us.org

American Association for the Advancement of Science (AAAS)
https://www.aaas.org

Beaudry Interactive, LLC
https://www.binteractive.com

BirdBrain Technologies, LLC
https://www.birdbraintech.com/

BWC Visual Technology, Spherical Systems
https://www.bwcviz.com

California Science Center
https://www.californiasciencecenter.org

CASEY CARLE, COMIC BUBBLE-OLIGIST
https://www.casey-carle.com

Clark Planetarium
https://www.slco.org/clark-planetarium

Collaboration for Ongoing Visitor Experience Studies (COVES)
https://www.understandingvisitors.org

Eriksen Translations Inc.
https://eriksen.com

Evergreen Exhibitions
https://www.evergreenexhibitions.com

Explorer Systems
https://www.versai.com

Field Museum
https://www.fieldmuseum.org

Hands On! Studio
https://www.hostudio.net

Huttinger Interactive Exhibitions
https://www.huettlinger.de

IF/THEN® Initiative
https://www.ifthencollection.org

Imagine Exhibitions Inc.
https://www.imagineexhibitions.com

Interspectral
https://www.interspectral.com

JRA
https://www.jackrouse.com

Little Ray's Nature Centres
https://www.littleraysnaturecentres.com

Loodo Exhibits
https://loodoexhibits.com

Los Alamos National Laboratory
https://www.lanl.gov/museum

Matheatre
https://www.matheatre.com

Minotaur Mazes
https://www.minotaurmazes.com

NASA - Exploration System Directorate
https://www.nasa.gov/content/j2m-getting-to-mars-sls-and-orion
NASA's Universe of Learning  
https://www.universe-of-learning.org

NISE Network  
https://www.nisenet.org

NOAA, National Oceanic and Atmospheric Administration  
https://www.noaa.gov

North Wind

Omaha Children’s Museum  
https://www.ocm.org

Ontario Science Centre  
https://www.ontariosciencecentre.ca/Rentals/

Pavilion of Knowledge - Ciência Viva  
https://www.pavconhecimento.pt/en/

POW! (Paul Orselli Workshop)  
https://www.orselli.net

Presidential Award for Excellence in Mathematics and Science Teaching  
https://www.paemst.org

Roto  
https://www.roto.com

Running Subway Productions  
https://www.runningsubway.com

Science North  
https://www.sciencenorth.ca/internationals

Sciencenter  
https://www.sciencecenterexhibits.org

Sertek Exhibitions  
https://www.sertek.com.tr

Smithsonian Institution Traveling Exhibition Service (SITES)  
https://www.sites.si.edu/

Trivium Interactive LLC  
https://www.triviuminteractive.com

Virtual Science Center  
https://www.virtualsciencecenter.org
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Allison Schwanebeck  
Science Center of Iowa  
Des Moines, Iowa, USA

Karen Wise  
Wise Strategic Advising  
Santa Monica, California, USA
ASTC Staff

Melissa Ballard
Senior Manager of Public Policy and Advocacy
Director of Programs (as of October 26)
mballard@astc.org

Jamie Bell
CAISE Project Director
jbell@informalscience.org

Julian Boaitey
Director of Finance and Administration
jboaitey@astc.org

Rachel Diamond, PhD
Chief of Staff
rdiamond@astc.org

Cristin Dorgelo
President and CEO
cdorgelo@astc.org

Jamie Durana
Coordinator of Communications
jdurana@astc.org

Adam Fagen, PhD
Director of Communications and Advocacy
afagen@astc.org

Amanda Fisher
Manager of Gender Equity Initiatives
afisher@astc.org

Ivel Gontan
Community Science Fellow
igontan@astc.org

Wendy Hancock
Senior Manager of Programs and Events
whancock@astc.org

Todd Happer
Senior Manager of Member Engagement
thapper@astc.org

Nina Humes
Manager of the ASTC Annual Conference
nhumes@astc.org

Erica Kimmerling
Senior Advisor for Science Engagement Policy and Partnerships
ekimmerling@astc.org

Lesley Markham
Senior Manager of Impact Initiatives
Acting Director of Impact and Inclusion
lmarkham@astc.org

Na’ilah Metwally
Coordinator of Operations
nmetwally@astc.org

Christofer Nelson
Chief Operating Officer
President and CEO (as of October 26)
cnelson@astc.org

Sasha Palmquist, PhD
CAISE Senior Manager of Community
spalmquist@informalscience.org

Joaquin Peña
Staff Accountant
jpena@astc.org

Aya Rothwell
CAISE Communications Coordinator
arothwell@informalscience.org

Shannon Sullivan
CAISE Project Manager
ssullivan@informalscience.org

Gaby Wilson
Coordinator of Member Services and Conference
gwilson@astc.org
The Association of Science and Technology Centers (ASTC) is a professional membership organization with a vision of increased understanding of—and engagement with—science and technology among all people, and a mission to champion and support science and technology centers and museums.

Founded in 1973, ASTC champions and supports more than 500 science centers, technology museums, natural history museums, children’s museums, and other STEM-rich, place-based institutions, such as nature centers, aquariums, planetariums, zoos, and botanical gardens throughout North America and in nearly 50 countries—as well as nearly 200 other organizations that share an interest in science learning and engagement. In an average year, ASTC-member science centers and museums engage more than 110 million people around the world annually.

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