

Stephen Miles Uzzo, PhD

Woods Hole, MA 02543 U.S.A.
+1.631.645.3508 ■ suzzo@siggraph.org
<http://www.stephenuzzo.net>
<https://www.linkedin.com/in/smuzzo/>
Scopus ID: 26323912700
ORCID identifier: 0000-0002-6508-3535

Interdisciplinary Executive, Educator, Researcher, and Innovator

Dynamic track record building top-tier research and learning organizations, partnerships, and networks across education, science, design, the creative arts, and policy

Overview

Proven collaborative leader with more than three decades of experience in strategic management and organizational transformation across natural science, education, design, and media sectors; ability to grow non-profit, academic, and cultural institutions into renowned world-class centers of twenty-first century research, teaching, and learning; seasoned communicator and skilled network and partnership builder who expertly guides research and development of innovative, award-winning, interdisciplinary learning initiatives, public experiences, and academic research programs with global reach; solid history of cultivating and diversifying funding sources from public and private sector, and adeptly managing fund utilization to measure and maximize impact.

Philosophy

Be the organization that steers the ship, rather than rides along. Build strong networks of support and collaboration but look to the edges for groundbreaking innovation that brings together and values diversity and the cultural funds of knowledge of those from the disadvantaged communities you serve; strive to be an expert listener; lead with compassion; and earn the respect of those whose lives you touch every day.

Highlights of Expertise

- Strategic Business Planning/Fundraising
- University-Level STEAM Course Design, Instruction, and Advisory/Mentorship
- Oversight of Graduate Students and Post Docs
- Peer/Panel Review/Advisory
- Interdisciplinary Team Leadership
- Community Outreach/Collaboration
- Research & Education in Complexity
- Budget Administration & Management
- Learning Research & Program Development
- Data-Driven Science and AI Integration into Learning and Evaluation
- Development and Management of Innovation in Experiential Learning
- Research, design, and Development of Digital Interactive and Immersive Experiences
- International Collaborative Building
- Development and promotion of equity across domains of knowledge

Education, Certifications, & Select Continuing Education

- **PhD in Interdisciplinary Studies, Concentration in Arts and Sciences; Specialization in Network Theory and Environmental Studies**
Union Institute, School of Interdisciplinary Studies, Cincinnati, OH, thesis: Network Theory and the Environment: Understanding Human Connections to Nature

- **Collaborative Institutional Training Initiative certification** for Social, Behavioral, and Educational Research
- **Educational Management and Leadership**, Stanford University, Palo Alto, CA
- **Bachelor of Arts in Music Education** *Long Island University*, Greenvale, NY
- **Bachelor of Arts, Art History** Long Island University, Greenvale, NY (2 years before transitioning to music)
- **Secondary Teaching Certificate**, New York State Education Department
- **Project Management**, Sun Microsystems
- **Basic SCUBA**, Professional Association for Diving Instructors
- **Radiotelephone Broadcast License**, Federal Communications Commission
- **Fireguard for Public Assembly Safety Personnel**, Fire Department of New York
- **Blackboard Academic Systems**

Appointments

Cape Cod Museum of Natural History/Green Briar Nature Center/Thornton Burgess Society, Brewster & East Sandwich, MA, 2025–Present

President/Executive Director

Non-Profit Museums and Nature Centers: provide leadership and manage institutional change for leading cultural institution on Cape Cod, including:

- Perform fundraising, relationship-building, and support for science, conservation, and STEM education partners locally and globally
- Develop and fund initiatives and public programs to increase public awareness of complex environmental issues and coastal hazards, regional wildlife and wildlife migration, and natural history topics such as archaeology, nature-based solutions, engineering, and habitat protection and restoration
- Manage extensive museum live and preserved collections of plant and animal specimens and the Thornton Burgess literary archives

National Museum of Mathematics, New York, NY, 2022 – 2025

Chief Technology Officer

Responsible for fact-finding, gathering resources and actualizing the short and long horizon technological and infrastructure needs of the institution in support of operational, programmatic, educational, and exhibit-related goals, including:

- Research and explicate the needs of the institution from a systemic and change management perspective in collaboration with operational, programmatic, design, and education staff
- Stand up new capacity in institutional advancement through grant-proposal development, government and policy relations, content development, research, and evaluation of visitor experience to introduce rigor, and create and assess new and existing areas of exhibition, education, and programming
- Intensively work with technical and operations staff to mitigate current technological vulnerabilities
- Provide technical and design support for the new digital museum initiative and virtualization of programming and services in collaboration with technical, design, and other leadership personnel
- Help plan and execute the design, technological infrastructure, new exhibitions, and innovation support for the future expanded home for the museum in collaboration with all departments

The New York Hall of Science, Flushing Meadows Corona Park, NY 1999 – 2022

Chief Scientist (2015-2022)

- Led, developed, funded, and managed operations, education, research, and development teams within and across institutions for advancing discovery in lifelong learning, career preparation, and transdisciplinary practice
- Established capacity-building collaborative partnerships with government, industry, foundation, academic, and cultural institutions in data and sustainability science
- Led cross-functional teams to advance the mission of increasing diversity and access to creative learning by building global partnerships and networks that promote advanced STEAM across the lifespan
- Created professional development curricula and supervised interdisciplinary research, education, and mentorship teams
- Cultivated and managed funding sources (PI or co-PI) to raise approximately \$25M from government and \$7M from private foundations for cyberlearning science and technology projects
- Initiate Data Science For All in collaboration with the Northeast Big Data Innovation Hub and NSF

Vice President for Science and Technology (2009-2015)

- Led development of programmatic and technical STEAM initiatives for museum and informal science learning
- Built enduring collaborations with major research labs, foundations, and universities to grow global alliances and transition the New York Hall of Science from a local New York City cultural institution to a world-renowned innovator in leading edge science and technology
- Managed programmatic and infrastructure design and development for \$20M renovation project for the New York Hall of Science's Great Hall and design, development and management of Connected Worlds, a \$5M large-scale immersive and fully interactive experience to provide opportunities for visitors to work together toward sustainability goals and provide a digital platform for learning research

Director of Technology (2004 – 2009)

- Led strategic planning for technology and institutional growth
- Managed of multi-million-dollar technology infrastructure renewal and transition (secured and managed donation from Cisco Systems to replace and update IT infrastructure to meet new business demands)
- Facilitated integration, interoperability, and scale-up of digital systems for finance, institutional advancement, membership, ticketing, and website design and development
- Led development of educational technology infrastructure and endpoints for high resolution telepresence and video conferencing systems
- Designed and managed development and integration of digital signage system and 3D digital theater

Technical and Graphics Manager for TryScience and Project Manager for Technology (1999 – 2004)

- Led design and development of technical and functional architecture for Tryscience.org and TryScience Around the World; a \$52M digital science center initiative sponsored by IBM to develop and host interactive content from over 800 ECSITE and ASTC member museums in 8 languages for Web and in-museum interactive digital learning experiences. Information architecture included quad

Unix (RS9000) dedicated web servers, with load balancing, backend digital publishing system (Domino Server, multiplayer gaming (Shockwave), search engine (AltaVista), and interactive application server (WebSphere). TryScience, a non-profit startup, was launched after an 18-month technical sprint and content was managed and grown over the period of a decade to include a social media portal for teachers (Teachers TryScience), and curriculum development for IBM's THINK exhibition and iPad applications. Duties also included liaison with participating science centers; technical web architecture design, development; and support, and content design and management.

- In Project Manager for Technology role, I managed technical infrastructure design and development for an \$89M science center expansion (North Wing), which opened to the public in 2004, including:
 - leading design of data and A/V infrastructure (including specification and management of \$1M in-kind donation from Nortel Networks and one of the earliest implementations of MESH wireless)
 - Coordination of power, HVAC, lighting, and security systems with data infrastructure needs
 - Design and specification of laboratory/classroom spaces
 - Led design, curation, and development of a new exhibition on emergence and the science of complex networks (including commissioning of nine artists and designers to interpret "networks" for the exhibition)
 - Led integration of exhibition on mathematics (the Charles and Ray Eames exhibition, Mathematica) int gallery space
 - Collaborated on update, design, fabrication, and installation for Science of Sports

New York Institute of Technology, Old Westbury, NY, 2006 – 2021

Adjunct Assistant Professor, Graduate School of Education, New York Institute of Technology College of Arts and Sciences

- Designed, taught and assessed curricula for STEM & STEAM (science, technology, engineering, arts, and math) integration courses for preservice teacher preparation in master's degree and Advanced Graduate Certificate in Education programs
- Developed and delivered grant-funded continuing education (STEMi) programs for New York City of Department of Education and United Federation of Teachers in-service teacher training programs
- Created and delivered online and live instruction for New York State teacher certification in STEM
- Developed new coarses on integration of arts into standard STEM curricula
- Extended the STEM instructional model to deploy sensor technologies to facilitate candidate's advancement and design of curricula
- Participated in development of distance learning graduate program curricula for United Arab Emirates and Israeli schools
- Participated in university-wide accreditation processes for National Council for Accreditation of Teacher Education (NCATE) and Council for the Accreditation of Educator Preparation (CAEP) self-study.

The Castilleja School Foundation, Palo Alto, California, 1996 – 1999

Director of Information Resources

- Supported \$11 million capital campaign through solicitation and management of donations and development of industry/academic partnerships to promote women's leadership in science and technology
- Served as liaison for board of directors' advisory council and chair of technology committee
- Performed strategic long-range capital and operations planning, faculty training and classroom science/technology integration
- Designed STEAM professional development programs, curricula and assessment metrics

- Developed and managed information resource center (including computer labs, library and faculty resource center, staffing, and capital and operating budgets)
- Led project design and management of building renovation projects including new science teaching and research facilities, IT infrastructure, computer labs, library and faculty resource center
- Participated in WASC accreditation process.

Bay Shore Union Free School District, Bay Shore, New York, 1992 – 1996

District Technology Director

- Served as senior advisor, designer and manager for district-wide integration of educational technology, infrastructure development, faculty development programs, and funded projects to experiment with data science and computer supported learning in classrooms
- Did capacity-building and outreach to bring the district together with universities, regional boards, and government to create academic/industry/ government partnerships; developed programs
- Authored grant proposals
- Created professional development programs
- Led strategic planning and capital budget development

Rainbow Network Communications, Woodbury, New York, 1990 – 1992

Director of Engineering: Broadcast Business Development and Operations

- Managed design, development and staffing of large-scale network operations center, television production studios, news, and program origination facilities
- Hired, managed, and trained department of 20 managers, supervisors, engineers, and technicians
- Developed new digital media ventures and staffed, equipped, and launched new networks
- Performed strategic business planning and logistics
- Engineered data/audio/video communications systems
- Developed and managed capital and operations budgets
- Participated in design team for 1992 Olympic Games International Broadcast Center

New York Institute of Technology, Old Westbury, NY, 1984 – 1990

Computer Graphics Laboratories/Video Center: Director of Engineering

- Designed interactive and distance learning systems, media, and curricula
- Developed and managed funded programs and budgets
- Evaluated and wrote technical papers on emerging imaging and computer graphics technologies
- Designed, engineered, and documented digital image processing systems, computer graphics/audio/video media production systems, and computer-based learning systems
- Served as engineer-in-charge for documentary film and video production

Additional media experience: Chief Engineer for Instructional Television Fixed Service for Diocese of Rockville Centre; Technical Engineer for Warner Amex Satellite Entertainment Company to launch new television origination facility including Music Television and Nickelodeon; as well as managing community and library media services on Long Island, NY.

Awards

- **Sigma Xi Science Research Honor Society**, 2023
- **International Serious Play Silver Award**, The Pack, 2020
- **American Alliance of Museums Media and Technology MUSE Gold Award**, Connected Worlds, 2017

- **Jackson Hole Science Media Award**, Interactive Category, Connected Worlds, 2016
- **Science and Practice of Ecology and Society Award**, Puntacana Ecological Foundation and the Scaling of Sustainable Tourism Development, 2013
- **Summit International Creative Award**, Photovoltaic Exhibit, 2011

Funded Research & Program Development (PI/Co-PI)

- *Conference on Human-Centered Approaches to Artificial Intelligence Literacy in Informal Learning*, New York Hall of Science / NSF, 2022
- *QuEST: Quantum Education for Students and Teachers*, State University of New York, Stony Brook, New York Hall of Science / NSF, 2018-2022
- *DataJam: Scaleup of Data Science High School Research Program*, New York Hall of Science, Pittsburgh Supercomputer Center/ Columbia University, Northeast Big Data Innovation Hub, 2021 – 2022
- *Applying Game Design Principles for Supporting Computational Literacy Experiences in Museum Exhibits*, New York Hall of Science / University of Wisconsin / NSF, 2021 – 2022
- *Playground Physics: Scaling and Sustaining a Technology-Enhanced Middle-School Physics Program*, New York Hall of Science / U.S. Department of Education, 2020 – 2022
- *Empowering Environmental Resilience Through Community Design*, New York Hall of Science / JPB Foundation, 2019 – 2022
- *The Pack: Using Game-based Learning to Infuse Computational Thinking into Science Teaching and Learning*, New York Hall of Science / U.S. Department of Education, 2019 – 2022
- *Data-Driven, Human-in-the-Loop Support for Facilitating Participatory Learning Activities*, New York Hall of Science / NSF, 2018 – 2022
- *Network for Earth-space Research, Education and Innovation with Data*, Associated Universities Incorporated / NSF, 2019 – 2023
- *NYIT Robert Noyce Teacher Scholarship Program*, New York Hall of Science, New York Institute of Technology / NSF, 2019– 2022
- *Making a Difference: Engaging Young People in Engineering and Computer Science through Computational Making and Social Entrepreneurship*, New York Hall of Science / NSF, 2018 – 2022
- *Understanding and Improving Data Visualization Literacy: Research and Tool Development to Empower General Audiences to Read and Make Data Visualizations*, Indiana University / NSF, 2017 – 2023
- *Big Data Literacy: Building Capacity for Regional Collaboration in Closing the Big Data Divide* Northeast Big Data Innovation Hub, Columbia University / NSF, 2016 – 2022
- *Hudson River Estuarium*, York Hall of Science/Clarkson University / New York State Dept. of State and Dept. of Environmental Conservation, 2015 – 2019
- *Computational Thinking in Ecosystems: A-Program-to-Play Approach to Infusing Computational Thinking into Environmental Science Learning*, New York Hall of Science, Columbia University, Design I/O, NSF & JPB Foundation, 2015 – 2019
- *Data Modeling with Young Learners and Their Families*, New York Hall of Science/NSF. 2016 – 2018
- *Learning Everywhere*, Concord Consortium /New York Hall of Science / Bowes Foundation, 2016 – 2018
- *Innovating Data-driven Methodologies for Documenting and Studying Informal Learning*, New York Hall of Science / NSF, 2015 – 2018
- *Innovation Institute: from Problem to Product*, New York Hall of Science / NSF, 2014 – 2017
- *Mathematics and Science Teacher Education Residency*, City University of New York/New York Hall of Science/ New York City Department of Education / New Visions for Public Schools / NSF, 2013 – 2018

- *Network Science for the Next Generation*, SUNY Binghamton/Boston University/New York Hall of Science / NSF, 2011- 2017
- *Ocean Communities in Education and Social Networks* - University of Massachusetts / New York Hall of Science / Boston Public Schools / Association for the Sciences of Limnology and Oceanography / Centers for Ocean Science Education Excellence / NSF, 2010 – 2016
- *Connected Worlds*, New York Hall of Science / Columbia University / Design I/O / New York University / Yale University / NSF / JPB Foundation / Google / Carnegie / NASDAQ / Xylem Corporation, 2009 – 2015
- *Pathways: Sensemaking of Big Data*, New York Hall of Science / Indiana University / NSF, 2012 – 2014
- *CS-STEM*, Topcoder / New York Hall of Science / DARPA, 2010 – 2012

Other Funded Research & Program Development

- *Teachers Tryscience*, IBM/New York Hall of Science: (Project Director for a development of a social website for K-12 teachers to develop, share and rate STEM lesson and unit plans), 2009 – 2011
- *Connections: The Nature of Networks*, New York Hall of Science/NSF: (exhibit and program developer/researcher for the first museum exhibit and programs on the science of complex networks), 2000 – 2004
- *TryScience*, IBM/New York Hall of Science/Association of Science-Technology Centers (technical and content manager for \$50M global website for science center content and programs for 800 ASTC and ECSITE member museums), 1999 – 2008
- *Technical Education and Mentoring Program*, Castilleja School Foundation/AAUW/Silicon Graphics, Inc./Stanford University (supervisor/evaluator), 1996 – 1999
- *Program for the Twenty-First Century* - Castilleja School Foundation: (director of information resources for program and capital development project to provide new STEM teaching facilities, programs and professional development), 1996 – 1999
- *MST Integrated Program for Physical Science* - Bay Shore School District: (curriculum and technical coordinator for program to team teach high school science, math technology and literacy), 1995-1996
- *Literacy Evaluation and Assessment Program* - Bay Shore School District: (co-PI), 1995-1996
- *Sciences of the Environment and Advanced Technology Education Consortium* - State University of New York, Brookhaven National Laboratory, Suffolk Board of Cooperative Educational Services, Bay Shore UFSD (PI for NSF-funded CTE program to teach vocational STEM), 1994 – 1996
- *Long Range Plan for Technology* - Bay Shore School District: (project director/facilitator), 1993 – 1995
- *Computer Integration into Restructured Collaborative Learning Environments* - Bay Shore School District (PI for grade 5 technology integration program including some of the earliest uses of programmable data loggers in science education), 1992 – 1995
- *Rainbow Networks Consolidation Project* - Rainbow Programming Enterprises: (project director for \$20M capital project to build a new network operation and studio facility to consolidate existing operations), 1990 - 1992
- *Joint Center for Computers, Learning, and Technology* - New York Institute of Technology/Howard University (director of engineering), 1988 – 1990
- *Interaction of Color* - NYIT, Pratt Institute, Apple Computer, The Albers Foundation, and Yale University Press (engineer in charge of production), 1987 – 1988

Courses, Workshops, Conferences, and Lectures

2026

- *DataJam Jordan*: Herbert Wertheim School of Public Health, UC San Diego, Pittsburgh Dataworks, Climate Action Network Jordan (judge for high school research team competition)
- Fifteenth Network Science and Education Symposium: Boston, USA (organizer)
- Seventeenth International Conference on Complex Networks (CompleNet): Zaragoza, Spain (steering/program committee)

2025

- *Panel on Bacteria & Viruses - 24 Hour Envisioning Intelligences Event*: Indiana University (moderator)
- *Screening: The Kingdom - How Fungi Made Our World - 24 Hour Envisioning Intelligences Event*: Indiana University (facilitator)
- *Scale Synchronization & Webs: Opportunities for Science Engagement: Panel: Engaging General Audiences - 24 Hour Envisioning Intelligences Event*: Indiana University (speaker)
- *Who Eats Whom: Modeling trophic interaction networks with large-scale, crowdsourced ecological data*. Fourteenth Annual International Conference on Complex Networks and their Applications: Binghamton University, New York (speaker)
- *Fourteenth Annual International Conference on Complex Networks and their Applications*: Binghamton University, New York (program committee and session chair: L2 – Information Spreading in Social Media).
- *Sixteenth International Conference on Complex Networks (CompleNet)*: Fortaleza, Brazil (steering committee)
- *Fourteenth Network Science and Education Symposium*: Maastricht, The Netherlands (co-organizer)
- *DataJam Jordan*: Herbert Wertheim School of Public Health, UC San Diego, Pittsburgh Dataworks, Climate Action Network Jordan (Judge)
- *What is Science - Woods Hole Science Stroll*: Woods Hole Institute, University of Chicago Marine Biological Laboratory (facilitator)
- *International Conference on Complex Systems Modeling, Analysis & Applications*: Christ University, Pune Lavasa, India & Binghamton University, Binghamton, USA (program committee)

2024

- *The Challenger Conversations 2023-2024, Conversation #6: Art and Data Visualization*: Scottish Association for Marine Science and University of Illinois Urbana-Champaign. (co-organizer/moderator)
- *Twenty-Four Hour "Multiscale Human" Event: Let's map the human body across scales! Panel: Science Museums*. Indiana University and the Canadian Institute for Advanced Research (panel organizer/convener/speaker)
- *In Celebration of Gabriel Fauré*: On the 100th anniversary of Fauré's death. Music of Faure and his contemporaries. Woods Hole Institute (host)
- *Thirteenth Network Science and Education Symposium*: Quebec City, Canada (co-organizer/speaker)
- *Thirteenth Annual International Conference on Complex Networks and their Applications*: Istanbul, Turkey (program committee)
- *Fifteenth International Conference on Complex Networks (CompleNet)*: Exeter, U.K. (steering committee)

2023

- *Twenty-Four Hour - Around the World - Macroscopes: Interactive Data Visualizations Event*: Indiana University (panelist)
- *Distant Visions: Reflections on Nature*, Woods Hole Institute in collaboration with Greg Brown, composer (developer/host)
- *Twelfth Network Science and Education Symposium*: Vienna, Austria (organizer)
- *Analyzing Youth's Problem-Solving in Computational Making Through a Community-Engaged Maker Program*: in session: Purpose, Aspirations, and Well-Being: Holistic Adolescent Development. American Educational Research Association, Annual Meeting (co-author paper)
- *Fourteenth International Workshop on Complex Networks (CompleNet)*: University of Aveiro, Aveiro, Portugal (steering/program committee)
- *Twelfth Annual International Conference on Complex Networks and their Applications*: Menton Riviera, France (program committee)
- *Enhancing middle school physical science lessons with embodied learning*: National Association for Research in Science Teaching Annual International Conference, Roundtable Strand 12: Technology for Teaching, Learning, and Research (co-author/panelist)

2022

- *Twenty-Four Hour Human Reference Atlas Event: Let's map the human body at single-cell resolution! Panel on Human Atlas Exhibits*: Ideation panel on developing a public experience on the human body atlas. Indiana University and National Institutes of Health (panel organizer/facilitator)
- *Celebrating The Challenger Expedition: Deep Sea to Deep Learning*: Woods Hole Institute in collaboration with Greg Brown, composer, and The University of Chicago Marine Biological Laboratory (curator/developer/host)
- *Where and How is Data Science Happening?: Workshop on Foundations of Data Science for Students in Grades K-12*. National Academies of Science, Engineering, and Medicine, Washington D.C. (invited panelist)
- *Eleventh Network Science and Education Symposium*: online (co-organizer)
- *Eleventh Annual International Conference on Complex Networks and their Applications*: Palermo, Italy (program committee)
- *Supporting Youth Engagement in Online Maker Education Workshops: Pandemic Lessons, Future Potentials*: In Session, Braving the Challenges of the Pandemic: Research on Navigating Learning Environments in Times of Emergency. AERA Annual Meeting, April 21, 2022, San Diego, CA (co-author)
- *Thirteenth International Workshop on Complex Networks (CompleNet)*: online (steering/program committee)
- *DataWise*: Workshop series for K-12 teachers to integrate data science into teaching practice. In collaboration with STEM Teachers NYC (co-designer/co-facilitator)
- *NSF/TERC STEM for All Video Showcase*: online (facilitator)

2021

- *How Virtual Networking Events Can Catalyze Convergence*: American Geophysical Union Fall Meeting, New Orleans, LA (co-author poster)
- *Studying Shared Regulation in Immersive Learning Environments*: 15th International Conference of the Learning Sciences (co-author short paper)
- *Studying Collective Problem-Solving Regulation in an Immersive Open-Ended Museum Exhibit*: American Educational Research Association, Annual Meeting. (co-author poster)

- *The Network for Earth-space Research Education and Innovation with Data*: 237th Meeting of the American Astronomical Society, Webinar (co-author/speaker)
- *Tenth Network Science and Education Symposium*: online (co-organizer)
- *Twelfth International Workshop on Complex Networks (CompleNet)*: online (steering/program committee)
- *Tenth Annual International Conference on Complex Networks and their Applications*: Madrid, Spain (program committee)
- *NSF/TERC STEM for All Video Showcase*: online (facilitator)
- *Math, Science and Technology in Education II*: New York Institute of Technology, Old Westbury, NY (instructor)

2020

- *The Pack: Using Game-based Learning to Infuse Computational Thinking into Science Teaching and Learning*: New Frontiers in K12 CS Education, U.S. Department of Education Webinar (invited speaker)
- *Formative Fugues: Helping Learners Understand Complex Systems through Causal Inference and Lag Sequential Analysis*: The Fifth CCS Satellite Symposium on Complex Systems and Education: Research and Practice Conference on Complex Systems (co-author contributed paper)
- *Ninth Network Science and Education Symposium*: online (co-organizer)
- *Measuring STEM and Computational Thinking Outcomes*: Education Innovation and Research Project Directors and Evaluators Technical Assistance Meeting, online, U.S. Dept of Education (invited speaker)
- *Summer of COVID-19 - Kids Online?:* Institute of Digital Media and Child Development, New York (invited panelist)
- *Data Science for All: Designing the Successful Inclusion of Data Science in High School Computer Science*: New York Hall of Science and Columbia University, Cornell Tech, New York, NY (co-organizer)
- *Eleventh International Workshop on Complex Networks (CompleNet)*: online (steering/program committee)
- *Ninth Annual International Conference on Complex Networks and their Applications*: Online (program committee)
- *Accelerating Convergence of Earth and Space Data in Teaching and Learning Through Participatory Design*: Earth Science Information Partnership Federation Winter Meeting, Bethesda, MD (panelist)
- *Network for Earth-space Research Education and Innovation with Data (NEREID)*: Earth Science Information Partnership Federation Winter Meeting, Bethesda, MD (co-author poster)
- *Math, Science and Technology in Education II*: New York Institute of Technology, Old Westbury, NY (instructor)

2019

- *Connected Worlds: Sustainability Science and Learning*: Stanford Research Institute, International, Menlo Park, CA (invited speaker)
- *Network for Earth-space Research, Education and Innovation with Data (NEREID): Building Convergence and Capacity Across Earth, Space, and Data Sciences*: in session, Communities, Tools, and Policies That Enable Integration of Earth, Space, and Environmental Science Data and Cyberinfrastructures II: Tools and Policies, American Geophysical Union Fall Meeting, San Francisco, CA (co-panelist)
- *Network for Earth-space Research, Education and Innovation with Data (NEREID): Collaboration for Earth-Space Data Science Education and Practice*: in session: Reaching the Researcher: Collaborations

Between Educators, Scientists, and the Public for the Advancement of STEM and Geosciences II, American Geophysical Union Fall Meeting, San Francisco, CA (co-author poster)

- *NEREID Earth-Space Data Convergence Accelerator Workshop*: Associated Universities, Inc. Green Bank Observatory, Green Bank, WV (co-organizer)
- *Make-A-Vis: Come Build a Data Visualization from the Ground Up*: Association for Science-Technology Centers Annual Conference (Pre-Conference Workshop), Toronto, ON, Canada (panelist)
- *Making a Difference: Engaging Young People in Engineering and Computer Science through Computational Making and Social Entrepreneurship*: Maker Educator Convening, Pittsburgh, PA (co-author/speaker)
- *Connect-to-Connected Worlds: Data-Driven Reflection Tools for an Open-Ended Simulation at a Museum*: Association of Science-Technology Centers Annual Conference, Toronto, Canada (speaker/panelist)
- *Math, Science and Technology in Education II*: New York Institute of Technology, Old Westbury, NY (instructor)
- *Network for Earth-space Research Education and Innovation with Data*: Earth Science Information Partners Summer Meeting, Tacoma, WA (co-author poster)
- *Ways of Developing Literacies – Inspiration: Successes of Literacy Projects Networks and Data*: International Society of for Systems Science Conference, University of Oregon, Corvallis, OR (invited speaker)
- *Eighth Network Science and Education Symposium*: International Workshop & Conference on Network Science University of Vermont, Burlington, VT (co-organizer/co-convener)
- *Eighth Annual International Conference on Complex Networks and their Applications*: Lisbon, Portugal (program committee)
- *Media Impact Screening Toolkit Retreat*: Institute of Digital Media and Child Development, Setauket, NY (facilitator)
- *Tenth International Workshop on Complex Networks (CompleNet)*: Universidad Rovira i Virgili, Tarragona, Spain (steering/program committee)
- *Partnering for the Future: Opportunities and Challenges for Advancing Science and Technology*: Huston-Tillotson University International Alumni Association, Austin, TX (invited keynote speaker)
- *Design for Understanding*: Princeton University, Princeton, NJ (invited speaker)
- *Data Literacy in Communities*: Columbia University/New York Hall of Science (host/organizer)
- *Interdisciplinarity and Design: Opportunities in science and learning*: Clarkson University School of Arts and Sciences, David A. Walsh Seminar, Potsdam, NY (invited speaker)

2018

- *Panel on Non-Traditional Educational Tools, A Visionary Resource for Instilling Fundamental Principles of Rigorous Neuroscience Research Workshop*: National Institutes of Health/National Institute of Neurological Disorders and Stroke, Bethesda, MD (invited panelist/speaker)
- *Interdisciplinary workshop on research and screening methods*: Digital Media and Developing Minds Second National Congress, Cold Spring Harbor Laboratory, Cold Spring Harbor, NY (organizer/facilitator)
- *Math, Science and Technology in Education II*: New York Institute of Technology, Old Westbury, NY (instructor)
- *Meeting of the Minds: CubeSats, Aerospace, Education and STEM*: U.S. Department of Education/Luminary Labs, New York, NY (invited domain expert)

- *LabVenture Re-launch*: Gulf of Maine Research Institute/NASA, Portland, ME (invited panelist/speaker)
- *Community Challenges with Data Workshop: Addressing Community Challenges with Data-Driven Solutions*: Data for Good Exchange, Bloomberg Finance LLP, New York City, NY (invited speaker/facilitator)
- *Data Science for All: Democratizing data for a global citizenry*: Data for Good Exchange, Bloomberg Finance LLP, New York, NY (co-author poster)
- *Complex Systems: Literacy and Learning*: International Conference on Complex Systems, New England Complex Systems Institute/Massachusetts Institute of Technology, Cambridge, MA (co-organizer, speaker)
- *Science Media Awards and Summit*: Jackson Hole Wildlife Film Festival and WGBH, Boston, MA (judge)
- *Seventh Network Science and Education Symposium*: Institut des Systèmes Complexes de Paris, France (co-organizer)
- *Shaping the Pack: Using Design-Based Research to Instill Empathy in a Computational Problem-Solving Game*: Community for Advancing Discovery Research in Education, National Science Foundation Principal Investigator Meeting, Washington, DC (co-author poster)
- *Science and The Public Interest Roundtable*: Washington University/Dilenschneider Group, New York, NY (invited speaker)
- *Hudson River Estuarium: Making the Invisible Visible*, Hudson River Symposium, State University of New York at New Paltz, NY (co-author poster)
- *Advancing Data Literacy*: Oregon State University, Corvallis, OR (invited speaker)
- *Northeast Regional Conference on Complex Systems*: Binghamton University, Center for Collective Dynamics of Complex Systems, Binghamton, NY (invited panelist, Young Researchers Preconference event)
- *U.S. Science and Engineering Festival - The Pack*: National Science Foundation, Washington, DC (invited presenter)
- *Northeast Big Data Innovation Hub - 2018 Summit*: Columbia University, New York, NY (steering committee/workshop co-organizer)
- *Ninth International Workshop on Complex Networks (CompleNet)*: Northeastern University, Boston, MA (steering/program committee)
- *Seventh Annual International Conference on Complex Networks and their Applications*: Cambridge, U.K. (program committee)
- *Cultivating Tipping Points: Network Science in Teaching*: Ninth International Workshop on Complex Networks, Northeastern University, Boston, MA (co-author poster)
- *International Big Cats Film Festival*: Jackson Hole Wildlife Film Festival Conservation Summit, Jackson Hole, WY (judge)

2017

- *The Third Task: Adventures in Complexity Literacy and Learning*: Binghamton University Center for Collective Dynamics of Complex Systems and Evolutionary Studies Program Seminar Series, Binghamton, NY (invited speaker)
- *Evolution of NYSCI and Connected Worlds, Panel Discussion*: The Panasonic Experience, Powered by InfoComm, New York Hall of Science, Corona, NY (invited panelist)
- *Sixth International Workshop on Complex Networks and their Applications*: Université de Lyon, France (program committee)

- *Data Modeling with Young Learners and their Families*: in Panel Visualizing STEAM Data in Support of Smart Decision Making, Science Centre World Summit, Tokyo, Japan (invited panelist)
- *Wicked Problems: Opportunities for the science museum community to address society's biggest challenges*: Association of Science-Technology Centers Annual Conference, Montreal, Canada (panel organizer/convener/speaker)
- *Math, Science and Technology in Education II*: New York Institute of Technology, Old Westbury, NY (instructor)
- *Alternative Institutional and Educational Mechanisms*: Panel on Informal Data Science Education National Academies of Sciences, Engineering and Medicine, Board on Mathematical Sciences and Analytics. Roundtable on Data Science Postsecondary Education Meeting #4, Northwestern University, Evanston, IL (invited panelist/domain expert)
- *Keeping Data Science Broad: Alternative Avenues for Development of Data Science Education Capacity*: South Big Data Hub, Georgia Institute of Technology, Atlanta, GA (webinar, invited speaker)
- *Big Data and the 95% Solution: Looking for Learning in All the Wrong Places*: Data for Good Exchange. Bloomberg Finance, LLP, New York, NY (co-author/speaker)
- *Computational Thinking Summit*: Educational Development Corporation, Newton, MA (invited participant)
- *Enaction: The Role of Embodiment in the Cultivation of Understanding Resilience in the Coupling of Human and Natural Systems*: American Cybernetics Society Annual Conference, Salem, MA (facilitator/instructor/guest lecturer)
- *Networks in Classroom Education*: U.S. Military Academy, West Point, NY (facilitator/speaker)
- *Jackson Hole Wildlife Film Festival*: Jackson Hole, WY (judge)
- *Institute in Education: Art Integration to Deepen Interdisciplinary Learning*: New York Institute of Technology, Old Westbury, NY (course creator, instructor)
- *Sixth Network Science and Education Symposium*: International School & Conference on Network Science Indiana University, Network Science Institute, Indianapolis, IN (co-organizer)
- *Highlighting Network Literacy Opportunities in Next Generation Science Standards: Pathways connecting essential concepts with disciplinary core ideas*: Sixth Network Science and Education Symposium: International Workshop & Conference on Network Science, Network Science Institute, Indiana University, Indianapolis, IN (speaker)
- *Consortium for the Society of Young Network Scientists Symposium*: International School & Conference on Network Science, Network Science Institute, Indiana University, Indianapolis, IN (facilitator)
- *Macrosopes for Making Sense of Science and Technology*: International Workshop & Conference on Network Science, Network Science Institute, Indiana University, Indianapolis, IN (speaker)
- *Applied Research in Immersive Environments for Learning*: American Educational Research Association Annual Meeting, San Antonio, TX (co-author/presenter)
- *Engaging Complex Social and Scientific Issues in Informal Learning Spaces*: American Educational Research Association Annual Meeting, San Antonio, TX (panelist)
- *Big Data Literacy: Building Capacity for Regional Collaboration in Closing the Big Data Divide*: New York Hall of Science and Columbia University, Corona, NY (co-organizer, host)
- *Data Driven STEM: Opportunities and challenges for science learning and literacy*: Associated Universities Incorporated, Washington, DC (invited speaker)
- *Big Data Literacy*: NSF BIGDATA Joint PI Meeting National Science Foundation, DC: (speaker)
- *Big Data Literacy*, Columbia University: Annual Workshop of the Northeast Big Data Innovation Hub, New York, NY (invited speaker)

- *Eighth International Workshop on Complex Networks (CompleNet)*: Dubrovnik, Croatia (steering/program committee)
- *STEM+C for Environmental Education*: Harvard Graduate School of Education, Cambridge, MA (invited speaker)
- *Play Data Consortium*, Massachusetts Institute of Technology, Cambridge, MA: (invited collaborator)

2016

- *Submerge NYC*: New York Hall of Science and Hudson River Park Trust, New York, NY (Co-host and Co-organizer for annual marine science festival on Pier 26)
- *The Fifth International Workshop on Complex Networks and their Applications*: Università degli Studi di Milano, Milan, Italy (program committee)
- *NetSciEd: Teaching Networks to Everyone*: Satellite Symposium on Complex Systems in Education: Questions, Methods and Implications for Practice, Conference on Complex Systems, Amsterdam, The Netherlands (co-organizer)
- *Connected Worlds: Connecting the Public with Complex Environmental Systems*: American Geophysical Union Fall Meeting, San Francisco, CA: (speaker/panelist)
- *From Wow! to Why?: Building Science Literacy with Data Visualization*: Visitor Studies Association Annual Conference, Boston, MA (invited panelist)
- *Art Integration to Deepen Interdisciplinary Learning*, Institute in Education, New York Institute of Technology, Old Westbury, NY (instructor)
- *Open Education Resources Research Convening*: National Science Foundation, Arlington, VA (invited domain expert)
- *Tracing Learning Across Time and Space*: Cyberlearning 2016: Designing for Deeper, Broader, and More Equitable Learning, SRI International and National Science Foundation, University of Wisconsin, Madison, WI (co-author/speaker)
- *Fifth Network Science and Education Symposium*: International School & Conference on Network Science, Advanced Institute of Science and Technology, Seoul, Korea (co-organizer)
- *Enaction: Embodied Interfaces for Learning*: Culture Analytics Workshop II: Cultural Analytics and User Experience Design, Institute for Pure and Applied Mathematics, University of California, Los Angeles, CA (invited speaker)
- *Teaching and Learning About Networks: A Metacognitive Dilemma*: International Network for Social Network Analysis: Sunbelt 36 Conference, Newport Beach, CA: (co-author/speaker)
- *Crowdsourcing Network Literacy: A Grassroots Story*: International Network for Social Network Analysis: Sunbelt 36 Conference, Newport Beach, CA (co-author/speaker)
- *Teaching Network Science to University Undergraduates*: International Network for Social Network Analysis: Sunbelt 36 Conference, Newport Beach, CA (panelist)
- *Seventh International Workshop on Complex Networks (CompleNet)*: Université de Bourgogne, Dijon, France (steering/program committee)
- *IEEE Integrated STEM Education Conference*: Princeton University, Princeton, NJ (co-organizer for NetSci High school student poster presenters)
- *Complex Systems in Education Symposium*: Georgia Institute of Technology, Atlanta, GA (invited panelist/ speaker/moderator)
- *Connected Worlds: Pathways to Engaging the Public in Sustainability Science*: Cary Institute of Ecosystems Study, Millbrook, NY (invited speaker)
- *The Genome Revolution: Understanding and Teaching DNA Sequencing*: New York Hall of Science President's Council Event, New York Genome Center, New York, NY (invited panelist)

- *Biochemistry Science Outreach Panel*: Albert Einstein College of Medicine, Montefiore Medical Center, Bronx, NY (invited panelist)

2015

- *Education Connector Workshop for Northeast Big Data Innovation Hub*: Columbia University, New York, NY (co-organizer)
- *STEM Integration & 21st Century Learning: Bringing Authenticity to K-12 Teaching and Learning*: The Challenge of STEM Education Symposium: International Perspectives, Academia Brasileira de Ciências, Rio de Janeiro, Brazil (invited speaker)
- *Supersizing Science: The Present and Future of Embodied Learning Through Technology*, Association of Science-Technology Centers Annual Conference, Montréal, Canada (panel organizer/speaker)
- *Submerge NYC*: New York Hall of Science and Hudson River Park Trust, New York, NY (Co-host and Co-organizer for annual marine science festival on Pier 26)
- *Math, Science and Technology in Education II*: New York Institute of Technology, Old Westbury, NY (instructor)
- *Sackler Colloquium: Children and Screens*: National Academies of Science, Irvine, CA. (invited domain expert)
- *Sixth Annual PostDoc Symposium*: Icahn School of Medicine, Mt. Sinai Hospital, New York, NY (invited panelist/domain expert)
- *Tracing Learning Through Time and Space*: New York Hall of Science, Corona, NY (co-PI/co-organizer)
- *The Extended Mind: How Doing Makes You Smarter*: Beacon Institute for Rivers and Estuaries: Third Thursday Public Lecture, Beacon, NY (invited lecturer)
- *Fourth Symposium on Network Science and Education*: International School & Conference on Network Science, Universidad de Zaragoza, Zaragoza, Spain (co-organizer)
- *Data Visualization Literacy of Youth and Adult Science Museum Visitors*: American Educational Research Association Annual Meeting, Chicago, IL (co-author/presenter)
- *Sixth International Workshop on Complex Networks (CompleNet)*: New York Hall of Science, Corona, NY (chair/host/co-organizer/program committee)
- *STEM Engagement and Learning Technology Leadership Forum*: New York Institute of Technology (invited speaker)
- *Cyberlearning 2015: Connect, Collaborate, and Create the Future*: SRI International and National Science Foundation, Arlington, VA (program committee, invited speaker)

2014

- *Network Science for the Next Generation Summer Workshop*: Boston University (co-PI/co-organizer)
- *Third Symposium on Network Science and Education*: International School & Conference on Network Science, U.C. Berkeley, Berkeley, CA (co-organizer/speaker)
- *Big Data and the Legible City: Connected Worlds*: Science Centre World Summit, Technopolis, Mechelen, Belgium (invited panelist)
- *Math, Science and Technology in Education II*: New York Institute of Technology, Old Westbury, NY (instructor)
- *New Technologies for Learning and Engagement*: Science Centre World Summit, Technopolis, Mechelen, Belgium (co-author)
- *Toward a Network Model of Learning*: Fifth International Workshop on Complex Networks, Università di Bologna, Bologna, Italy (invited speaker)

- *Submerge NYC*: New York Hall of Science and Hudson River Park Trust, New York, NY (Co-host and Co-organizer for annual marine science festival on Pier 26)

2013

- *The Fourth Paradigm: Connecting Visitors to Complex Science*: Association of Science-Technology Centers Annual Conference: Albuquerque, NM (panel organizer/speaker)
- *Network Science for the Next Generation Summer Workshop*: Boston University, Boston, MA (co-PI/co-organizer)
- *Second Symposium on Network Science and Education*: International School & Conference on Network Science, Danmarks Tekniske Universitet and Det Kongelige Bibliotek, Copenhagen, Denmark (co-organizer/speaker)
- *The Fourth Paradigm: Connecting Learners to Complex Science*: National Socio-Environmental Synthesis Center, Annapolis, MD (invited speaker)
- *Sensor Networks and Social Networks: Effective Strategies for Education and Outreach*: American Society for Limnology and Oceanography Aquatic Sciences Meeting, New Orleans, LA (co-author)
- *Fourth International Workshop on Complex Networks*: Freie Universität Berlin, Germany (program committee)
- *Collaboration+Metrics=Funding*: Jackson Hole Wildlife Film Festival Symposium, Denver, CO (invited panelist)
- *Deconstructed: Connected Worlds*, Jackson Hole Wildlife Film Festival Symposium, Denver, CO (invited speaker)
- *Network Science for the Next Generation Summer Workshop*: Boston University, MA (co-PI/co-organizer)
- *Symposium on Network Science and Education*: International School & Conference on Network Science, Northwestern University, Evanston, IL (organizer/speaker)
- *Math, Science and Technology in Education II*: New York Institute of Technology, Old Westbury, NY (instructor)
- *Evaluating Meaning and the Visitor Experience*: Metropolitan Museum of Art, New York, NY (invited speaker)
- *Third International Workshop on Complex Networks*: Florida Institute of Technology, Melbourne, FL (co-author poster)

Other Courses, Workshops, and Lectures

- *Authentic Data Workshop*: National Academies of Science, National Board on Science Education, Irvine, CA (invited panelist/domain expert)
- *Modeling and Mapping Science Workshop*: Indiana University, Bloomington, IN (invited panelist)
- *Mapping the Structure and Evolution of Sustainability Science*: American Association for the Advancement of Science, Washington, DC (invited panelist)
- *Network Paradigms for STEM Learning*: International School & Conference on Network Science, Massachusetts Institute of Technology, Cambridge, MA (speaker)
- *National STEM Education Exchange Working Group*: White House Office of Science and Technology Policy, Washington, DC (domain expert/invited panelist)
- *The Right Approach: Methods for Computational Thinking both Formally and Informally*: National Academies of Science/National Research Council, Washington, DC (invited panelist/domain expert)
- *NSF Workshop on How to Measure, Map and Dramatize Science*: Indiana University, Bloomington, IN (host/co-organizer)

- *20/20 Vision: Next Generation of STEM Learning Research*: Institute for Learning Innovation, Oregon State University, Corvallis, OR: (invited speaker)
- *The Seen and the Unseen: from Scientific Visualization to Data Visualization and its Impact on the Understanding of Science*: Gordon Research Conference on Scientific Visualization and Education, Magdalen School, Oxford University, Oxford, UK (invited speaker)
- *Connections: The Nature of Networks*: International School & Conference on Network Science, University of East Anglia, Norwich, UK: (invited convener/speaker)
- *NSF Workshop on Knowledge Management & Visualization Tools in Support of Discovery*: New York Hall of Science, Corona, NY and National Science Foundation, Arlington, VA (co-organizer/co-facilitator/host)
- *International School & Conference on Network Science*: Notre Dame University, Harvard Medical School and New York Hall of Science, Corona, NY (co-PI/host/co-organizer)
- *Image and Meaning 2*: Massachusetts Institute of Technology and J. Paul Getty Museum, Los Angeles, CA (session collaborator)
- *Exhibits and Expansion in the 21st Century*: National Association of Museum Exhibition and Association of Science-Technology Centers Roundtable for the Advancement of Professionals, Jersey City, NJ (invited panelist)
- *Learning Design and Technology Master's Program*: Stanford University, Stanford, CA (presenter, advisor and mentor)
- *Using Emerging Technologies in Classroom Teaching*: Castilleja School Foundation, Palo Alto, CA (curriculum developer/instructor)
- *Models for Successful Faculty Development Integrating Technology*: National Coalition of Girls Schools, National Conference, San Francisco, CA (invited speaker)
- *Teaching Secondary French with Multimedia*: California Language Teaching Association Annual Conference, San Francisco, CA (lecturer)
- *MST Pre-service Faculty Preparation Standards Workgroup*: State University of New York, Stony Brook, NY (invited domain expert)
- *Technologies and Applications for K-12 Assessment*: New York State Board of Regents, New York City Schools Under Registration Review Annual Conference, New York, NY (invited speaker)
- *Applied Science Workshop in Math Science, and Technology for Environmental and Marine Sciences*: Mid-Suffolk Tech Prep Consortium (invited speaker)
- *Seals of Blackfish Rock*: Group for the South Fork, Bridgehampton, NY (program leader/instructor)
- *Telecommunications with a Costa Rican Rain Forest*: National Science Teaching Association: National Convention, Boston, MA (lecturer)
- *Marine Science and Fisheries Program*: Roskilde Universitet, New York, NY (advisor/host)
- *Sachem's Neck in Winter*: The Nature Conservancy, South Fork Shelter Island Chapter, Shelter Island, NY (program leader/instructor)
- *Imaging in Extreme Environments*: International Design for Extreme Environments Assembly Two, Growth and Environment: Challenging Extreme Frontiers, McGill University Center for Northern Studies and Research, Montreal, Canada (panelist/lecturer)
- *The Tombo of Upper Beach, Shoreline Morphology of Shelter Island*: Group for the South Fork, Bridgehampton, NY (program leader/instructor)
- *Discrepancies in Color Reproduction Technology*: Association for Computing Machinery Special Interest Group on Computer Graphics and Interactive Techniques Annual Conference, Boston, MA (course developer/instructor)

- *Use of Electronic Bluescreen Traveling Mattes in Live Distance Learning and Professional Development Program*: J.C. Penney Corporation, New York, NY (invited speaker)

Publications

- Mallavarapu, A., Uzzo, S., Vasudeva, N., Dunn, R., Allf, B. (2026). Who Eats Whom. In: Cherifi, H., Rocha, L.M., Cherifi, C., Ertem, M.Z. (eds) *Complex Networks & Their Applications XIV. COMPLEX NETWORKS 2025. Studies in Computational Intelligence*, vol. 1263. Springer, Cham. https://doi.org/10.1007/978-3-032-16645-6_15
- Mallavarapu, A., Walker, E., Kelley, C., Gardner, S., Roschelle, J., & Uzzo, S. (2023). Network Based Methodology for Characterizing Interdisciplinary Expertise in Emerging Research. In *International Conference on Complex Networks and Their Applications* (pp. 121-132). Cham: Springer Nature Switzerland.
- National Academies of Sciences, Engineering, and Medicine. (2023). Current Landscape of Data Science Education. In *Foundations of data science for students in grades K-12: Proceedings of a workshop*.
- Bennett, D., Brunner, C., Hartmann, N., & Uzzo, S. (2023). Using Open-World Games to Support Inclusive Approaches to Computational Thinking. *Connected Science Learning*, 5(1), 12318625.
- Bastón, R., Cramer, C., Daly, A. J., Hudson, F. D., Liou, Y. H., Naum, K., Thompson, W, Umer L. & Uzzo, S. (2023). An Investigation of the Northeast Big Data Innovation Hub through Social Network Analysis. In: *The Social Leader: Catalyzing Networks for Educational Change* (C., Daly & Liou, Y., Eds.). Bloomsbury Publishing. 230.
- Mallavarapu, A., Lyons, L., & Uzzo, S. (2022). Exploring the utility of social-network-derived collaborative opportunity temperature readings for informing design and research of large-group immersive learning environments. *Journal of learning analytics*, 9(1). 53-76.
- Cohen, R. L., Mallavarapu, A., Lyons, L., & Uzzo, S. (2021). Studying shared regulation in immersive learning environments. In *Proceedings of the 14th International Conference on Computer-Supported Collaborative Learning-CSCL 2021. International Society of the Learning Sciences*.
- Browne, D. T., May, S. S., Colucci, L., Hurst-Della Pietra, P., Christakis, D., Asamoah, T., Hale, L., Delrahim-Howlett, K., Emond, J., Fiks, A., Madigan, S., Perlman, G., Rumpf, H.-J., Thompson, D., Uzzo, S., Stapleton, J., Neville, R. & Prime, H. (2021). From screen time to the digital level of analysis: a scoping review of measures for digital media use in children and adolescents. *BMJ open*, 11(5), e046367.
- Stella, M., Kapuza, A., Cramer, C., & Uzzo, S. (2021). Mapping computational thinking mindsets between educational levels with cognitive network science. *Journal of Complex Networks*, 9(6), cnab020.
- Mallavarapu, A., Lyons, L., & Uzzo, S. (2021). Formative Fugues: Reconceptualizing Formative Feedback for Complex Systems Learning Environments. *International journal of complexity in education*, 2(2).
- Uzzo, S. M., Cramer, C. B., Sayama, H., & Faux, R. (2021). NetSci High: Bringing Agency to Diverse Teens Through the Science of Connected Systems. *Northeast Journal of Complex Systems (NEJCS)*, 3(2), 2.
- Mallavarapu, A., Lyons, L. & Uzzo, S. (2020) Formative Fugues: Helping Learners Understand Complex Systems through Causal Inference and Lag Sequential Analysis. In Argyrakis Panos. *CCS2020 - Conference on Complex System 2020 - Book of Abstracts*. Presented at the Conference on Complex Systems 2020 (CCS2020), online: Zenodo. <http://doi.org/10.5281/zenodo.4427919>.
- Beheshti, E., Lyons, L., Mallavarapu, A., Thompson, W., Wallingford, B., & Uzzo, S. (2021). Co-Designing Learning Dashboards for Informal Educators. In *Design Make Play for Equity, Inclusion, and Agency*

(pp. 61-79). Routledge.

- Lyons, L., Uzzo, S., Ba, H., & Thompson, W. (2021). The Pack: Playfully Embodying Computational and Systems Thinking. In *Design Make Play for Equity, Inclusion, and Agency* (pp. 208-225). Routledge.
- Beheshti, E., Lyons, L., Mallavarapu, A., Wallingford, B., & Uzzo, S. (2020, April). Design considerations for data-driven dashboards: Supporting facilitation tasks for open-ended learning. In *Extended Abstracts of the 2020 CHI Conference on Human Factors in Computing Systems* (pp. 1-9).
- Koroshetz, W. J., Behrman, S., Brame, C. J., Branchaw, J. L., Brown, E. N., Clark, E. A., Dockterman, D., Elm, J.J., Gay, P.L., Green, K.M., His, S., Kaplitt, M.G., Kolber, B.J., Kolodkin, A.L., Lipscombe, D., Macleod, R. McKinney, C.C., Munafo, M.R., Oakley, B., Olimpo, J.T., Du Sert, P. N., Raman, I.M., Riley, C., Shelton, A.L., Uzzo, S.M., Crawford, D.C., & Silberberg, S. D. (2020). Framework for advancing rigorous research. (report from Workshop to Develop A Visionary Resource for Instilling Fundamental Principles of Rigorous Neuroscience Research). *Elife*, 9, e55915. DOI: <https://doi.org/10.7554/eLife.55915>.
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- Letourneau, S. M., Liu, C. J., Donnelly, K., Meza, D., Uzzo, S., & Culp, K. M. (2020). Museum makers: Family explorations of data science through making and exhibit design. *Curator: The Museum Journal*, 63(1), DOI:10.1111/cura.12348. 131-145.
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- Uzzo, S. M., & Cramer, C. B. (2019). Networks and Data: Adventures in Literacy and Learning. In *Proceedings of the 63rd Annual Meeting of the ISSS-2019* Corvallis, OR, USA.
- Mallavarapu, A., Lyons, L., Uzzo, S., Thompson, W., Levy-Cohen, R., & Slattery, B. (2019, May). Connect-to-connected worlds: Piloting a mobile, data-driven reflection tool for an open-ended simulation at a museum. In *Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems* (pp. 1-14).
- Cramer, C., Gera, R., Panagakou, E., Porter, M. A., Sayama, H., Sheetz, L., M. Stella, M. & Uzzo, S. (2018). Proceedings of NetSciEd 2018. The NetSci Satellite Symposium on Network Science and Education at the International Workshop & Conference on Network Science, Institut des Systèmes Complexes de Paris.
- Towlson, E. K., Sheetz, L., Gera, R., Roginski, J., Cramer, C., Uzzo, S., & Sayama, H. (2018). Networks in Classroom Education (NiCE) Teacher Workshop: Engaging K-12 Teachers in the Development of Curricular Materials That Utilize Complex Networks Concepts. *Complicity: International Journal of Complexity in Education*, Vol. 15, No. 1. Edmonton: University of Alberta. 5.
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- Uzzo, S. M., Graves, S. B., Shay, E., Harford, M., & Thompson, R. (2018). *Pedagogical content knowledge in STEM: Research to Practice*. Edited Volume. Switzerland: Springer International Publishing AG.
- Uzzo, S. M., Ba, H., & Umer, L. (2018). Collaborative PCK in practice: Bringing together secondary, tertiary, and informal learning in a stem residency program. In *Pedagogical Content Knowledge in STEM: Research to Practice* Edited by Uzzo, S. M., Graves, S. B., Shay, E., Harford, M., & Thompson, R. Springer. 215-239.
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- Lyons, L. & Uzzo S. (2017) *Big Data and the 95% Solution: Looking for Learning in All the Wrong Places*, In *Proceedings for the Data for Good Exchange*, New York: Bloomberg Finance, LLP.
- Pitts, D., Arcand, K., Char, F., Deustua, S., Govender, K., Herrold, A., Maryboy, N. & Uzzo, S (2017) *AUI Education and Public Outreach Advisory Council Review Report*. Associated Universities Incorporated, Washinton D.C.
- Sayama, H., Cramer, C., Sheetz, L., & Uzzo, S. (2017). NetSciEd: network science and education for the interconnected world. *Complicity: International Journal of Complexity in Education*, Vol. 14, No 2. (2017) <https://journals.library.ualberta.ca/complicity/index.php/complicity/article/view/29339>.
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Advisory, Boards & Consultancies

(Current)

- Woods Hole Institute (Co-Founder/Trustee)
- *National Arts Club* (Art+Technology Committee)
- *Places and Spaces Science Mapping Exhibition*: Luddy School of Informatics, Computing, and Engineering, Indiana University/National Science Foundation/Bill & Melinda Gates Foundation/National Institutes of Health/National Endowment for the Humanities/James S. McDonnell Foundation (Curatorial Advisory Board member)
- University of Chicago Marine Biological Laboratory (MBL Council)
- *Artificial Intelligence Incubator*: Center for Integrative Research in Computing and Learning Sciences, National Science Foundation/Digital Promise/Education Development Center/Stanford Research International/University of Pittsburgh (Team Member/Co-author)
- *Network Science Society* (Board member)

- *Hudson Canyon Sanctuary Advisory Council*: National Oceanographic and Atmospheric Administration, U.S. Department of Commerce (Science and Research Working Group)
 - *EDU Core Research Hub*: American Institutes of Research/ National Science Foundation /Georgia State University/Morgan State University/Northwestern University (Advisor)
 - *Advancing Methods and Synthesizing Research in STEM Education*: American Institutes of Research/National Science Foundation (Advisor)
 - *WaterSIMmersive*: Designing and assessing a mixed-reality water sustainability educational game and museum exhibit for communities in the Desert Southwest, National Science Foundation, Arizona State University (Advisor)
 - *International Conference on Complex Networks, CompleNet* (Steering Committee)
 - *Salonga Wetlands, Advocacy Network* (Board member, Secretary)
- (Previous)
- *Infectious: Stay Away!* L'Institut national de la santé et de la recherche médicale/Trinity College, Dublin/Science Gallery (Advisor)
 - *Institute of Digital Media and Child Development* (Advisor)
 - *Learning Design and Technology (MS) Program*, Stanford Graduate School of Education, Stanford University (Advisor)
 - *Real World, Real Science: Labventure*. Gulf of Maine Research Institute/NASA/Education Development Center (Advisor)
 - *Redes Y Conexiones (Networks and Connections)* Museo Laberinto de La Ciencias y Las Artes (Advisor)
 - *Why Zoos and Aquariums Matter, STEM Matters: Investigating the Confluence of Visitor and Institutional Learning Agendas*, National Science Foundation /Knology/ Center for Research and Evaluation at COSI/Oregon State University Center for Research on Lifelong STEM Learning/Association of Zoos and Aquariums (Advisor)
 - *Advisory Committee for Long-Range Information Technology Plan* Northport-East Northport Schools (Advisor)
 - *Amgen Biotech Experience* Amgen Foundation/Education Development Center (Advisor)
 - *Local Image Processing and Storage Network*: Blue Sky Productions (Consultant)
 - *Brooklyn Children's Museum Expansion Project*: City of New York/Carnegie Corporation/Michael Bloomberg (Technical Advisor)
 - *CIS-Lunar Teleoperations Simulation Project* Princeton Space Studies Institute (Advisor)
 - *Communication Arts Department Advisory Committee*, Dutchess County Community College (Advisory Board Member)
 - *Concept Web Alliance* Netherlands Bioinformatics Centre (Trustee)
 - *Connected: The Power of Six Degrees* Real Pictures, Pty (Advisor)
 - *Education and Public Outreach Advisory Council* Associated Universities Incorporated (Advisory Council member)
 - *Stuyvesant Square Park Neighborhood Association* (Board Member)
 - *Technology Plan* Lawrence Hall of Science (Advisor)

Peer Review

- American Association for the Advancement of Science
- Canadian Society for Ecology and Evolution
- Cultural Data Analytics Open Lab Tallinn University
- Ecological Society of America
- Ecology and Society
- Frontiers Marine Science
- Institute of Museum and Library Services
- International Conference on Complex Networks and Applications
- International Conference on Complex Networks
- Jackson Hole Wildlife Film Festival
- Complexity: John Wiley and Sons
- National Aeronautics and Space Administration
- National Oceanographic and Atmospheric Administration
- National Science Foundation
- Northeast Journal on Complex Systems
- Northeast Regional Conference on Complex Systems
- Sloan Foundation
- Springer Nature
- Taylor & Francis

Membership

(Current)

- American Association for the Advancement of Science
- American Society for Cybernetics
- American Geophysical Union
- Association of Computing Machinery & ACM Special Interest group on Computer graphics and Multimedia (SIGGRAPH)
- Complex Systems Society
- Ecological Society of America
- International Society for Systems Science
- National Arts Club
- Network Science Society

(Previous)

- Academy of Television Arts & Sciences
- American Society for Photogrammetry and Remote Sensing
- Association for the Development of Computer-Based Instructional Systems
- Association for Supervision and Curriculum Development
- Human Factors Society
- International Network for Social Network Analysis
- Instructional Television Association
- International Society for Technology in Education
- National Science Teaching Association
- Society for Information Display
- Society of Motion Picture and Television Engineers
- Society for Industrial and Applied Mathematics

Additional Information

Please use: “stephen miles uzzo” or “stephen uzzo” as keywords in a world wide web search engine.