

Convocation on the Status of Informal Science and Engineering Education

Committee

Kirsten Ellenbogen

Chair

is the current President and CEO of the Great Lakes Science Center in Cleveland, Ohio. The hallmark of Dr. Kirsten Ellenbogen's energetic leadership is strong community partnerships, such as the collaboration with Cleveland Metropolitan School District that reaches every 6th, 7th, and 8th grade class with programming on everything from circuitry to blockchain. The Science Center has been honored for this work and was named a 2021 National Medal for Museum and Library Service finalist, recognizing their pioneering approaches and commitment to community solutions.

Her research and evaluation bring together science communication, rhetoric, and informal science education. Her leadership over the last thirty years has advanced informal science education through the Center for Informal Learning and Schools, the Nanoscale Informal Science Education Network, the Museum Learning Collaborative, and as co-principal investigator of the Center for Advancement of Informal Science Education. She served as co-chair of the National Academies of Sciences, Engineering, and Medicine Standing Committee on Advancing Science Communication, and on the committee that produced the report Learning Science in Informal Environments: People, Places & Pursuits. Most recently, she has been appointed to the Board on Science Education. She has served as a board officer for numerous local and national boards and is currently chair of the Cleveland Water Alliance board of directors.

Sue Allen

Member

is Co-Director of the Clean Conferencing Institute, a nonprofit dedicated to improving the design of informal learning and networking experiences at virtual professional conferences. She is also Principal of Allen & Associates, an independent research and evaluation consulting firm. Previously Dr. Allen founded the Department of Visitor Research & Evaluation at the Exploratorium, led the Informal Science Education program at NSF, served as Acting Division Director of the Division of Research on Learning, and was a Senior Research Scientist at the Maine Mathematics and Science Alliance. Over her career Dr. Allen has led numerous large federally funded research projects in informal STEM education, mostly in museums or community-based programs. She has also been an external evaluator on multiple federally funded projects and has served on several national expert committees to characterize STEM learning in out-of-school settings. She currently serves on the Board on Science Education (BOSE). She received her Ph.D. in Science and Mathematics Education and has a Master's degree in Astrophysics. She served on the BOSE Committee that led to the 2009 consensus report "Learning Science in Informal Environments: People, places, and pursuit," as well as the Committee for the practitioner volume, "Surrounded by Science."

Ralph Bouquet

Member

is the Director of Education and Outreach for NOVA, the PBS science documentary series produced by GBH. At NOVA, Ralph and his team support science educators by creating free classroom resources and engaging new audiences for NOVA's broadcast and digital productions through science communication events across the country. In his role, Ralph has overseen and contributed to a wide range of NOVA's education projects over the past decade including NOVA's library of over 1,000 free educational resources on PBS LearningMedia, production of science games and interactives on the NOVA Labs platform, and outreach campaigns for NOVA's tentpole projects. He has also participated as a speaker at several science communication and education events including the National Science Teaching Association, the National Math Festival, ComSciCon, SXSWedu, and more. Before NOVA, Ralph taught high school biology and chemistry in Philadelphia and worked in ed-tech at a Boston-based startup. Ralph received his B.A. from Harvard University and studied secondary science methods and urban education while completing his M.Ed. at the University of Pennsylvania.

Kevin J. Crowley

Member

is a professor of Education and a Senior Scientist at the Learning Research and Development Center. Crowley studies informal learning and its connection to learning ecosystems. His work connects research, practice, and community, and recognizes that informal learning invites people to co-construct experiences that reflect their values, needs, strengths, and hopes. Crowley's work has often focused on children's science learning and explored the role of educators and caregivers who know how to facilitate children's learning and development through collaboration, conversation, and brokering new learning opportunities. Working in research/practice partnerships, Crowley employs a range of research methodologies to directly impact practice while simultaneously building generalizable knowledge about informal learning. Recent projects focus on community-based networks to support climate change education in rural areas, the role of interest and identity in shaping life-long learning pathways, and designing partnerships and networks that can bring museums and community-based organizations together in support of family learning and literacy. Committed to building the field of informal learning, he is co-editor of Visitor Studies and served 15-years as co-lead of the Center for Advancing Informal Science Education. Dr. Crowley has Ph.D. and M.S. in Psychology from Carnegie Mellon University and a B.A. in Psychology and Education from Swarthmore College.

Cecilia Garibay

Member

is President of Garibay Group and is a leading voice in the study and development of equity-focused research and evaluation practices in museum and other informal learning settings. She specializes in culturally responsive, transformative methodologies and brings a bicultural/bilingual perspective to her work.

One area of her research concerns organizational change in museums and other informal learning spaces to support shifts in the systems and practices that can preclude engagement. Bridging the worlds of research and practice, Dr. Garibay's work has included developing frameworks tools for practitioners to support broadening participation. She has led numerous evaluations in the informal learning space and has served as co-PI on various national initiatives in informal STEM learning spaces.

She was co-PI for the Center for the Advancement of Informal Science Education (CAISE). Garibay also served National Academies' Board on Science Education Committee which resulted in the seminal publication Learning Science in Informal Environments: People, Places, and Pursuits. She was also a panelist and author for NSF's publication Framework for Evaluating Impacts of Informal Science Education Projects. She is a past board member of the Visitor Studies Association. Dr. Garibay received her Ph.D. in Psychology at Saybrook University.

Preeti Gupta

Member

is the Senior Director for Children, Family and Youth Learning and Research, is responsible for strategic planning and program development for out of school time children, family and youth initiatives at the American Museum of Natural History. In that role, she also serves as faculty for the Masters of Arts in Teaching Earth Science Residency Program. She is co-editor of the Journal of Museum Education. Prior to this she was serving as Senior Vice President for Education and Family Programs at the New York Hall of Science. Her research interests are focused on the trajectories of youth's experiences with science in and out of school settings, the role that museums play in motivation and deepening engagement with STEM and STEM careers, youth employment and workforce development and the factors that mediate how youth identify with the scientific enterprise. She also studies the role of museums in STEM teacher preparation for both formal and informal settings. In 2005, she won the Inaugural National Roy L Schafer Leading Edge Award for Experienced Leadership in the Field from the Association for Science Technology Centers.

Joseph Heimlich

Member

is Co-Director for the COSI Center for Research and Evaluation, and a Senior Researcher in the Center's Lifelong Learning Group. His research and evaluation work focuses on projects related to informal learning and capacity building for zoos, nature centers, parks, gardens, science centers, and other museums. He is also an Academy Professor Emeritus with The Ohio State University where he was an Extension Specialist in museums and organizational capacity building, served as Leader, Environmental Science for OSUE, and held appointments in the School of Environment and Natural Resources, the Environmental Science Graduate Program, and the College of Education and Human Ecology. Dr. Heimlich has been engaged in environmental free-choice learning for over 35 years and is the author of numerous academic journal articles, chapters, and books. He received his Ph.D. in Educational Psychology at Ohio State University.

Anita Krishnamurthi

Member

is the Senior Vice-President for STEM & Youth Civic Engagement at the Afterschool Alliance where she also serves as the President of the Collective for Youth Empowerment in STEM & Society (CYESS). This initiative of the Afterschool Alliance aims to support afterschool programs to more actively engage young people in defining and advocating for solutions to problems that impact their communities, which often require STEM knowledge.

Prior to this role, Anita most recently served as the Head of Education and Learning at the Wellcome Trust, a global health philanthropy based in London. Her previous roles include being Vice President for STEM Policy at the Afterschool Alliance, Program Manager at NASA Headquarters, Lead for Education and Public Outreach in the Astrophysics Division at NASA's Goddard Space Flight Centre, and the John Bahcall Public Policy Fellow at the American Astronomical Society. Dr. Krishnamurthi has a Ph.D. in astrophysics and serves on the Boards of the National Girls Collaborative Project and STEM Education Coalition

Rabiah Mayas

Member

has more than 16 years of experience leading informal science learning (ISL) initiatives for youth, educators, families and the general public. She is currently a Program Director in the Division of Research on Learning in Formal and Informal Environments (DRL) at the National Science Foundation. Previously she held several education leadership roles at the Griffin Museum of Science and Industry, Chicago, most recently as Vice President of Education and Chief Partnerships Officer. Her professional work has focused on building capacity for STEM learning programming and research, with emphasis on public science events, science communication training, maker-based learning, and community engagement. Rabiah has also supported leadership development for informal STEM educators and resource networks for informal STEM learning and engagement, including serving as co-PI of the Center for the Advancement of Informal Science Education (CAISE). She is a member of several nonprofit boards and advisory committees, including the Chicago Children's Museum Advisory Board, the Chicago Learning Exchange Board, and the Boys and Girls Club of Chicago Board. She also received an honorary Doctor of Science from Lake Forest College in 2014. Rabiah earned a B.S. in Biochemistry and Molecular Biology and a certificate in Modern Languages and Linguistics from the University of Maryland Baltimore County, where she was also a Meyerhoff Scholar. She also earned a Ph.D. in biochemistry and molecular from the University of Chicago.

Scott Pattison

Member

is a social scientist who has been studying and supporting STEM education and learning since 2003, as an educator, program and exhibit developer, evaluator, and researcher. His current work focuses on engagement, learning, and interest and identity development in free-choice and out-of-school environments, including museums, community-based organizations, and everyday settings. Dr. Pattison specializes in using qualitative and quantitative methods to investigate the processes and mechanisms of learning in naturalistic settings. He has partnered with numerous educational and community organizations across the country to support learning for diverse communities. Pattison earned a Ph. D. in Science Education at Oregon State University in 2014.

Tiffany Taylor

Staff Officer