

# Artificial Intelligence in Education and Mental Health for a Sustainable Future: A Workshop

Roundtable on Science and Technology for Sustainability Board on Health Care Services Board on Science Education

**Thursday, May 30, 2024** 

All times are US Eastern Time

The public is invited to register to join virtually.

### **AGENDA**

## **Workshop Objectives:**

- Reviewing AI tools, applications, and strategies in education and mental health across the globe and the implications for sustainable development;
- Highlighting knowledge gaps between academia and the private sector, as well as opportunities and key priorities for promoting sustainability, including startup and local perspectives; and
- Discussing opportunities for cross-sector collaboration, including AI potential to accelerate progress on the Sustainable Development Goals (SDGs).

9:00 am Welcome from Roundtable on Science and Technology for Sustainability

Cherry Murray (NAS/NAE), University of Arizona, Roundtable Co-Chair

Franklin Carrero-Martínez, National Academies of Sciences, Engineering, and Medicine

9:10 am Goals for the Workshop and Framing Remarks

Shefali Mehta, Open Rivers Consulting Associates, Workshop Chair

# Session I: AI in Mental Health and Well-Being for Sustainable Development

The pandemic and overlapping global crises, including climate change, have increased attention on the importance of mental health and well-being, which are foundational for us as humans. Humans have great inner resiliency, and the more we acknowledge and address it, we increase the individual and community sustainability. This session examines the important role of digital mental health technologies, including emerging concerns such as trust and equity, and opportunities to optimize the benefits of AI.

9:30 am Panel I: Recent AI Developments in Mental Health and Well-Being (Research)

Moderator: Nebojsa Nakicenovic, International Institute for Applied Systems Analysis

- Tina Hernandez-Boussard, Associate Dean of Research and Professor of Medicine (Biomedical Informatics), Stanford University
- Isaac Galatzer-Levy, Senior Staff Research Scientist, Google and Adjunct Assistant Professor, Department of Psychiatry, New York University Grossman School of Medicine

10:15 am BREAK

## 10:30 am Panel II: AI Implementation and the Human Elements (Practice)

Moderator: Beatriz Sanz Sáiz, Ernst and Young

- Karen Magruder, Assistant Professor of Practice Social Work, The University of Texas at Arlington
- Sonja Batten, Vice President of Programs, Stop Soldier Suicide
- Chaitali Sinha, Senior Vice President, Healthcare and Clinical Development, Wysa

### 11:30 am Panel III: Broadening Access and Opportunities (Policy)

Moderator: José Lobo, Arizona State University

- Elizabeth Chin, Assistant Professor, Department of Biostatistics, Johns Hopkins University
- Tom Romanoff, Director of Technology Project, Bipartisan Policy Center

# 12:15 pm Synthesis: Future Needs and Opportunities

All Participants

12:30 pm LUNCH

# Session II: AI in Education for Sustainable Development

Education is predicated on healthy humans who can be curious and learn at any age. The private sector plays an important role in making AI a valuable educational tool. This session examines opportunities and challenges among education professionals, knowledge gaps between academia and the private sector, and a need for addressing the digital divide for effective AI strategies in education.

# 1:20 pm **Panel IV: Recent AI Developments in Education** (Research)

Moderator: Susan Hanson (NAS), Clark University

- Abejide Ade-Ibijola, Professor of Artificial Intelligence and Applications, University of Johannesburg
- Fengchun Miao, Chief of Unit for Technology and AI in Education, United Nations Educational, Scientific and Cultural Organization

#### 2:05 pm Panel V: AI Implementation and the Human Elements (Practice)

Moderator: Jeff Martin, Tribal Planet

- Saurabh Sanghvi, Partner, McKinsey & Company
- Kristen DiCerbo, Chief Learning Officer, Khan Academy
- Taskeen Adam, Co-Director, Open Development & Education

### 3:05 pm BREAK

#### 3:20 pm Panel VI: Broadening Access and Opportunities (Policy)

Moderator: Meghna Tare, The University of Texas at Arlington

- Victor P. Piotrowski, Program Director, Division of Graduate Education, National Science Foundation
- Kevin Johnstun, Education Program Specialist, Office of Educational Technology, U.S. Department of Education

# 4:05 pm Synthesis: Future Needs and Opportunities

All Participants

## 4:20 pm Wrap Up

Shefali Mehta, Open Rivers Consulting Associates and Workshop Chair

4:30 pm Adjourn



# Artificial Intelligence in Education and Mental Health for a Sustainable Future: A Workshop May 30, 2024

## **Biographies of Invited Speakers**

## Welcome from Roundtable on Science and Technology for Sustainability

CHERRY MURRAY (NAS/NAE) (Roundtable Co-Chair) is Professor of Physics and Deputy Director for Research, Biosphere 2 at The University of Arizona. Her current research interests include policy, research, development, education and innovation to sustain human civilization on future Earth. From 1978 to 2004, Dr. Murray held a number of research positions, which culminated in the Senior Vice Presidency of Physical and Wireless Research, at Bell Laboratories, Lucent Technologies, formerly AT&T Bell Laboratories and previously Bell Telephone Laboratories, Inc. She then served at Lawrence Livermore National Laboratory as Deputy Director for Science and Technology from 2004 to 2007, and as Principal Associate Director for Science and Technology from 2007 to 2009. She was dean of Harvard University's School of Engineering and Applied Sciences from 2009 to 2014. Dr. Murray served as the Director of the U.S. Department of Energy's Office of Science from 2015 until 2017. She served as president of the American Physical Society in 2009, on the National Commission on BP Deepwater Horizon Oil Spill and Offshore Drilling in 2010, has served on numerous National and American Academy, American Association for the Advancement of Science, American Physical Society, Department of Energy and Department of Commerce committees, and currently serves as chair of the board of the Okinawa Institute of Science and Technology Graduate University, director of the American Academy of Arts and Sciences and member of the National Academy of Engineering Council. From 2019-2021, she was elected as co-chair for science and is now treasurer of the Inter Academy Partnership, a partnership of over 140 national and regional science, engineering and medical academies dedicated to providing independent and credible advice to policy makers and to strengthening the role of academies nationally, regionally and globally. In 2021 she was appointed co-chair of the Ten Member Group of the Technology Facilitation Mechanism of the United Nations. Dr. Murray received her B.S. and Ph.D. in Physics from the Massachusetts Institute of Technology.

FRANKLIN CARRERO-MARTÍNEZ joined the National Academies of Sciences, Engineering, and Medicine in 2018 where he directs the Global Sustainability and Development and the Science and Technology for Sustainability program within the division of Policy and Global Affairs. Prior to this appointment, he was the Acting Deputy Science and Technology Adviser to the Secretary of State. Previously, Dr. Carrero-Martínez held appointments as associate professor at the University of Puerto Rico (UPR), Mayagüez, Adjunct Professor at the UPR Medical Science Campus, and as a visiting scholar at Duke University, Massachusetts Institute of Technology, and Japan's Institute of Genetics. Dr. Carrero-Martínez started his career in science diplomacy and policy as the American Association for the Advancement of Science's Roger Revelle Fellow in Global Stewardship. He served this prestigious fellowship with a joint appointment between the Office of the Science and Technology Adviser to the Secretary of State (STAS) and the National Academy of Sciences. Dr. Carrero-Martínez holds a B.S. in biology with honors from UPR, a Ph.D. in cell and developmental neurobiology, and a certificate in business administration from the University of Illinois at Urbana-Champaign.

### **Goals for the Workshop and Framing Remarks**

SHEFALI MEHTA (Planning Committee Chair) is an economist, statistician and coach who supports individuals and communities in reaching their full potential. She founded and leads Open Rivers Consulting Associates, a science & technology and management consulting firm that emphasizes the environment and holistic wellness. Open Rivers builds upon her clients' strengths to develop and implement organizational strategy utilizing key principles including compassion, data and transdisciplinarity. Serving the community across diverse causes are core to Open Rivers' mission. Dr. Mehta extensively advises and supports multiple non-profits. She most recently served as Deputy Under Secretary of Research, Education and Economics and Acting Chief Scientist of U.S. Department of Agriculture. Before that Dr. Mehta served across a variety of private, public and non-profit sectors including McKinsey, Syngenta, and the National Corn Grower's Soil Health Partnership. Dr. Mehta earned her Ph.D. in Agricultural and Applied Economics and M.S. in Statistics from the University of Minnesota, M.Phil. in Economics from Cambridge University, and a B.A. in Economics from New York University.

# Session I: AI in Mental Health and Well-Being for Sustainable Development

### Panel I: Recent AI Developments in Mental Health and Well-Being

NEBOJSA NAKICENOVIC (Moderator) is Honorary and Distinguished Emeritus Scholar of the International Institute for Applies Systems Analyses where he was the Deputy and Acting Director General. He is Deputy Chair of the Group of Chief Scientific Advisors to the European Commission and was tenured Professor of Energy Economics at Vienna Technology University. Among other positions, Dr. Nakicenovic is the Executive Director of The World In 2050 (www.TWI2050.org); has been a member of the Earth League; Earth Commission of the Global Commons Alliance; Multi-stakeholder Technical Group of Advisor on Sustainable Development Goal 7; Scientific Advisory Boards of the Potsdam Institute from Climate Impact Research; Fondazione Eni Enrico Mattei; Japanese Institute of Environmental Studies; German Aerospace Center; Renewable Energy Policy Network for the 21st Century; OMV Advisory Group on Sustainability; and Climate Change Centre Austria. He has also been a Technology and Innovation Advisor to the Government of Montenegro. He serves on many Editorial Boards of peer-reviewed journals, including Technological Forecasting and Social Change; Climate Policy, Energy Policy, Institution of Civil Engineers; Current Opinion in Environmental Sustainability; Energy Sector Management; Ecosystem Health and Sustainability; Scientific World Journal; Environmental Innovation and Societal Transitions; and the Energy Strategy Reviews. Dr. Nakicenovic's research interests include the long-term patterns of technological change, economic development and response to climate change and, in particular, the evolution of energy, mobility, digital technologies. Dr. Nakicenovic holds bachelors and master's degrees in economics and computer science from Princeton University and the University of Vienna, where he also completed his Ph.D. He also holds Honoris Causa Ph.D. degree in engineering from the Russian Academy of Sciences.

TINA HERNANDEZ-BOUSSARD is an Associate Dean of Research and Professor of Medicine (Biomedical Informatics), Biomedical Data Sciences, Surgery and Epidemiology & Population Health (by courtesy) at Stanford University. With a rich background and vast expertise in biomedical informatics, health services research, and epidemiology, she is at the forefront of advancing healthcare through the development, evaluation and application of innovative methods. Through her research, she aims to effectively monitor, measure, and predict equitable healthcare outcomes. By leveraging real-world data, her team works diligently to construct a solid body of evidence that can significantly enhance patient outcomes, streamline healthcare delivery, and provide valuable guidance for health policy decisions. In addition, Dr. Hernandez-Boussard focuses intensively on mitigating bias and enhancing equity within artificial intelligence applications in healthcare settings. Through her research and evaluation of AI

technology, she seeks to advance healthcare practices while ensuring that diverse populations receive equitable resources, care, and outcomes.

ISAAC GALATZER-LEVY is a senior staff research scientist at Google leading research and development on the applications of sensors and artificial intelligence to psychological health. He is an Adjunct Assistant Professor in the Department of Psychiatry at the New York University Grossman School of Medicine and past Scientific Program Chair for the International Society of Traumatic Stress Studies (ISTSS). He previously led mental health technology development in Meta Reality Labs. Dr. Galatzer-Levy has published over 100 peer-reviewed publications including in *Natural Medicine*, *JAMA Psychiatry*, *Annual Review of Psychology*, *Annual Review of Clinical Psychology*, and *Daedalus*. His scientific work has been supported through funding and collaboration by National Institutes of Health, U.S. Department of Defense, North Atlantic Treaty Organization (NATO), and U.S. Department of Veterans Affairs). Additionally, he holds multiple patients for inventions in AI-based measurement of psychiatric symptomatology and psychological states.

## Panel II: AI Implementation and the Human Elements

BEATRIZ SANZ SÁIZ (Moderator and Planning Committee Member) is Global Consulting Data and Analytics Leader for EY. She is a forward-thinking professional with experience in strategy and deep knowledge in artificial intelligence (AI) and analytics. She has been a partner with EY for 15 years. Ms. Sanz served in various roles within Europe, Middle East, India, Africa, and Asia-Pacific and leads more than 9,000 professionals. She is also responsible for analysts relationship in this technical domain where EY has obtained highest ranks by analysts such as Gartner and the International Data Corporation, leapfrogging our direct competitors. In her current role as Global Consulting Data Analytics leader, Ms. Sanz has actively worked Cross Service Lines, defining the Firm broad strategy for Data and AI and is actively driving the execution of the program. She is an advocate for Tech & Sustainability, being the sponsor partner of the "Better Working World" data program, aimed at solving some of the world's largest issues through Data and AI. During her career, Ms. Sanz has also held senior positions with leading companies in financial services where she was responsible for establishing analytics and innovation as core competencies. She holds a master's degree in Mathematics and Statistics from Complutense de Madrid. She is a game-changer, thought leader in analytics, customer centricity and Innovation. Awarded Consultant of the year by Consulting Magazine in 2018, she was named a Top Talent Executive Under 40 by AMROP, IESE and Royal House. Ms. Sanz was a speaker at the Emtech China 2019, Europe Money 20/20, Dubai World Government Summit.

KAREN MAGRUDER, LCSW-S is an Associate Professor of Practice at the University of Texas at Arlington School of Social Work, where she brings to the classroom a broad background in aging, mental health, and environmental justice. A dedicated and award-winning educator, Ms. Magruder is passionate about integrating evidence-based and innovative techniques to promote student success in online learning. Ms. Magruder is also pursuing her Doctor of Social Work (DSW) degree at the University of Kentucky, where she is studying the implications of AI for social work practice and education. She manages a small private therapy practice, provides clinical supervision, and maintains a free social work education resources YouTube channel with over 10,000 subscribers.

**SONJA BATTEN** is a licensed clinical psychologist and Stop Soldier Suicide's vice president of programs and senior mental health professional overseeing clinical program development. She was previously the senior psychological health adviser at Booz Allen Hamilton. As deputy chief consultant for specialty mental health at VA, she oversaw national mental health policy and led VA's award-winning mental health public awareness campaign "Make the Connection." Dr. Batten was the first deputy director of the Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury and first associate director for women's health research at Yale University School of Medicine. While leading the VA Maryland Health Care System's outpatient and residential PTSD programs, she established its first

mental health outreach and clinical program for veterans who were beginning to return from Iraq and Afghanistan. Dr. Batten has a Ph.D. in clinical psychology from the University of Nevada, Reno, and received specialized at the National Center for PTSD and National Crime Victims Research and Treatment Center.

CHAITALI SINHA is a psychologist and the senior vice president of healthcare and clinical development at Wysa. She has clinical expertise as a therapist across digital, judicial, rural and traumafocused settings, and as a researcher on large-scale cluster RCTs in clinical and public health contexts. In the last five years, she has worked with Wysa on building products with clinical expertise across the cycle of conception, design, implementation and research. She is currently a co-author on 20+ publications in press or under peer review, and the inventor on two patents. Her research work with digital mental health interventions involves working on interventions to test for an experimental hypothesis, building research infrastructure for digital health applications, and working with Wysa's key partners across public health and academia including the National Health Services in the UK, Harvard and Columbia University, and the Washington University of St. Louis in the US.

### **Panel III: Broadening Access and Opportunities**

JOSÉ LOBO (Moderator) is on the faculty of the School of Sustainability, College of Global Futures, Arizona State University. Trained in physics, applied mathematics and urban economics, Dr. Lobo's research spans the role of cities and urbanization in driving socioeconomic development, and the determinants of technological change. In his research work he has collaborated with social scientists, physicists, biologists, engineers and applied mathematicians, and with colleagues from the Global North and the Global South (including China, India, South Africa, Mexico and Brazil). In collaboration with organizations representing informal settlements ("slums") in Africa, India and Latin America, Dr. Lobo has studied the role of informal settlements in urban development and is currently examining how the experience of the urban poor building resilient urban communities can inform the design of climate change solutions. At the School of Sustainability Dr. Lobo teaches undergraduate and graduate courses on mathematics, sustainable urban development and energy systems transitions. As a member of the University's General Studies Council, he has been involved in the design and implementation of the new undergraduate general studies curriculum. The curriculum specifies the requirements for undergraduate students in the nation's largest public University. One of the curriculum's knowledge areas is "Sustainability," which aims to provide students with an interdisciplinary understanding of socioecological systems in relation to global challenges and opportunities. Dr. Lobo received his Ph.D. in Regional Science from Cornell University.

**ELIZABETH CHIN** is Assistant Professor in Department of Biostatistics at Johns Hopkins University. Her research interests lie in developing and improving systems to support ethical, equitable, and robust decision making. We develop and apply methodologies in causal inference, algorithmic fairness, and machine learning to systems-level problems in public health, focusing on health inequities produced by structural injustice and policy impact. She completed her Ph.D. in Biomedical Data Science at Stanford University under the guidance of Euan Ashley and Trevor Hastie and her research was generously funded by the National Science Foundation Graduate Fellowship and Stanford Graduate Fellowship. Previously, Dr. Chin received her B.S. in Applied Mathematics at University of California, Los Angeles. She has also worked as a machine learning and data science roles at Adobe Systems and Quora.

**TOM ROMANOFF** is an internationally recognized expert in AI Policy and Technology issues in Congress. He currently serves as the Director of the Technology Project at the Bipartisan Policy Center (BPC). Prior to his role at BPC, Mr. Romanoff led IT initiatives for several U.S. Federal agencies and advised executive leadership on the impact of new and emerging technologies on government operations. He spent several years at the Office of Management and Budget (OMB), where he published federal-wide IT and Cybersecurity policies and developed modernization initiatives. Earlier in his career, Tom assisted

the United Nations Development Program in modernizing its global data collection and analytics system. Mr. Romanoff holds a Master's degree in Public Policy and Management from Carnegie Mellon University and is an active member of their Alumni Board.

# Session II: AI in Education for Sustainable Development

### Panel IV: Recent AI Developments in Education

SUSAN HANSON (NAS) (Moderator and Planning Committee Member) is Distinguished University Professor Emerita and longtime professor of geography at Clark University. She is an urban geographer with interests in gender and economy, transportation, local labor markets, and sustainability. Her research has examined the relationship between the urban built environment and people's everyday mobility within cities; within this context, questions of access to opportunity, and how gender affects access, have been paramount. Her books include Ten Geographic Ideas that Changed the World; Gender, Work, and Space (with Geraldine Pratt); and The Geography of Urban Transportation. Dr. Hanson has been the editor of several academic journals, including The Annals of the Association of American Geographers, Urban Geography, and Economic Geography and has been the geography editor of the International Encyclopedia of the Social and Behavioral Sciences, first and second editions. She has led the School of Geography at Clark and is a past president of the Association of American Geographers (AAG), a fellow of the American Association for the Advancement of Science, a former Guggenheim Fellow, a former fellow at the Center for Advanced Study in the Social and Behavioral Sciences at Stanford, and a recipient of the Honors Award and of the Lifetime Achievement Award from the AAG and of the Van Cleef Medal from the American Geographic Society. In 2000 she was elected to the National Academy of Sciences and the American Academy of Arts and Sciences. She was recently Division Chair of the Transportation Research Board (TRB) of the National Research Council (NRC) and is Chair of the NAS Publications Committee and a member of the editorial board of the Proceedings of the National Academy of Sciences. Her B.A. is from Middlebury College, and before earning her M.S. and Ph.D. at Northwestern University, she was a Peace Corps Volunteer in Kenya.

ABEJIDE (JIDE) ADE-IBIJOLA holds a Ph.D. in Computer Science (Artificial Intelligence) from the University of the Witwatersrand, Johannesburg. He is currently a professor of AI and Applications at the Johannesburg Business School (JBS), University of Johannesburg (UJ), South Africa. Rated by the National Research Foundation (NRF) of South Africa, he has published over 80 articles with more than 1,000 citations on algorithms, AI tools, and real-world innovations, leading to several commercialized products. Dr. Ade-Ibijola has received 65 major awards in teaching, research, and innovation, and has secured/contributed over R357 million (\$20+ million USD) for research, innovation, and social development, including youth technopreneur training. He is the Director of Postgraduate Diploma Programs at JBS, Chairperson of the JBS Centre for Entrepreneurship's Advisory Board, Founder and Chairman of GRIT Lab Africa, and Founder and President of Machines with Minds. He also serves as a Distinguished Visiting Professor of AI at Woxsen University, India, and the University of Kigali, Rwanda. Dr. Ade-Ibijola is a member of UJ's Academy of Distinguished Teachers and serves on various teaching and learning committees. He has twice won the UJ Vice-Chancellor's Distinguished Awards for Innovation (2019) and Teaching Excellence (2020). In 2020, he secured software licenses worth over \$1.5 billion for the UJ community. In 2023, he was a finalist for the Africa Tech Leader of the Year Award and the Africa Educational Technology Award. He received an Africa Impact Award at Deep Learning IndabaX Nigeria and was recognized for academic excellence at the NCEA Awards. Dr. Ade-Ibijola's career boasts over 100 awards and recognitions. More at: www.gritlabafrica.org.

**FENGCHUN MIAO** is the Chief of the Unit for Technology and Artificial Intelligence (AI) in Education at Education Sector, UNESCO Headqarters in Paris, he is also a Professor (on leave) in AI and Education. He is leading programmes of the Education Sector of UNESCO on technology and AI in education including the programmes on guidance for generative AI in education, AI competency frameworks for

school students and teachers, the report on AI and the Futures of Learning, as well as supporting policies on digital education, AI and education, and Open Educational Resources. He is managing UNESCO Prize for the Use of ICTs in Education. He is the education focal point of UNESCO's inter-sectoral Taskforce for AI and intersectoral programmes on the implementation of the Recommendation for the Ethics of AI. Highlights of his achievements include leading the organization of 4 editions of international forums on AI and education (2019, 2020, 2021, and 2022) and the development and adoption of the *Beijing Consensus on AI and Education*; the launch and continuous organization of Mobile Learning Week of UNESCO for 10 years and the launch of the new UNESCO flagship annual event Digital Learning Week in 2023. He is the leading author of more than 20 important publications of UNESCO in various domains of digital education. Five reports he produced were ranked top 50 from 2022-2023 among all UNESCO publications. He has coordinated the support for more than 70 countries in the formation of national digital education policies.

## Panel V: AI Implementation and the Human Elements

JEFF MARTIN (Moderator) is Founder and Chief Executive Officer (CEO) of Tribal Planet, Inc. Through the marketing and development of groundbreaking technologies, Mr. Martin has spent his career applying innovation to multimedia product design. Mr. Martin continues to build new mobile commerce channels by changing the way consumers engage with entertainment, industry and philanthropy. In 2001 and 2008, Mr. Martin founded Tribal Brands and Tribal Technologies, respectively. Tribal Brands developed mCommerce solutions for a variety of consumer brands and was one of the first companies to drive more than one billion dollars in mobile-based sales for the entertainment industry through 17 global carrier alliances. Tribal Technologies created the first intelligent database behind mobile applications that predicted consumer behavior and interactions, powering unique mCommerce channels, and providing incentive programs for customers. The extensive mobile analytics platform captured actionable, psychographic data highlighting user tastes and preferences collected through mobile devices. In 2014, Tribal Brands and Tribal Technologies were combined to create Tribal Planet. Prior to Tribal Planet, Mr. Martin helped pioneer the entertainment and new media markets divisions at Apple in the early 1990s for 9 years and was a direct report to Steve Jobs after the NEXT acquisition.

SAURABH SANGHVI is a partner in McKinsey's Bay Area office and a leader for the firm's education and economic development work. Mr. Sanghvi works with public, private, and not-for-profit organizations around the world on topics related to affordability and access, business building, education technology, growth strategy, higher education, innovation, sustainability, and workforce and economic development. He is passionate about how humans and technology can better support improving education and employment outcomes with a particular emphasis on historically disadvantaged and underserved individuals. His recent client projects include supporting a university design and launching a major affordability initiative to dramatically increase access; advising an online learning company's global growth strategy; partnering with a large economic development agency in the United States to design and launch a suite of upskilling and reskilling programs to help drive post-COVID-19 economic recovery; and developing a global strategy for a leading global education provider. Prior to joining McKinsey, Mr. Sanghvi worked at Microsoft, and cofounded a not for profit focused on international development. He is an active writer and speaker on education, the future of work, and workforce development.

KRISTEN DICERBO is the chief learning officer at Khan Academy. In this role, she is responsible for driving and communicating the learning strategy for Khan Academy's programs, content, and product to realize deep engagement and better learning outcomes. She leads the content and product management teams, ensuring pedagogical coherence and a research-informed design across Khan Academy's offerings. Prior to coming to Khan Academy, Dr. DiCerbo was the vice-president of learning research and design at Pearson. Throughout her career she has focused on conducting and embedding learning science research into digital learning experiences, including work with the Cisco Networking Academy. She also served as

a school psychologist in an Arizona school district. Dr. DiCerbo has a B.A. in psychology and sociology from Hamilton College and an M.Ed. and Ph.D. in educational psychology from Arizona State University.

TASKEEN ADAM is a Co-Director of Open Development & Education, Senior Research Lead at EdTech Hub, and Research Associate at the University of Johannesburg. She has over 10 years of international education research and development experience. Her thematic areas of expertise are EdTech for low-resource contexts, justice-oriented inclusive education models, open educational practices, critical digital pedagogies, education data management, data for decision-making, EdTech testbeds, implementation science, tech-supported teacher professional development, structured pedagogy and personalized adaptive learning. She completed her Ph.D. on 'Addressing Injustices through MOOCs' at the University of Cambridge. Her research highlights that historical injustices, cultural imposition, and economic dependence continue to play a pivotal role in education. Dr. Adam is pioneering a new strand of research on Decolonising EdTech, which focuses on equitable, inclusive design and implementation approaches to EdTech interventions in the backdrop of geopolitical inequalities.

## Panel VI: Broadening Access and Opportunities

MEGHNA TARE (Moderator) is the Chief Sustainability Office of University of Texas Arlington, working collaboratively to foster partnerships among academic, research, and operational departments. She has a successful track record of launching and managing projects, developing strategy, managing operations, policy and program implementation. She has expertise in SDGs, public policy, CSR, climate change, equitable food systems, transportation, conservation, place-based education, and social impact. Ms. Tare is the Founder and Director of Regional Center of Expertise for Education in Sustainable Development (RCE North Texas), a program of the United Nations University, and the North Texas Food Policy Alliance. She serves and represent UTA on several Advisory Boards including the National Academy of Science Board on Higher Education and Workforce Development, Association for the Advancement of Sustainability in Higher Education (AASHE), and on the Board of Directors for International Council for Local Environmental Initiative (ICLEI USA). Ms. Tare graduated with an MBA in Sustainable Management, M.S. in Environmental Science, and M.S. in Chemistry.

VICTOR P. PIOTROWSKI is the Lead Program Director for the Division of Graduate Education at the National Science Foundation (NSF). He is responsible for several programs related to Cybersecurity Education and Workforce Development. Before joining NSF, Dr. Piotrowski served as a Professor and Chair of the Computer Science Department at the University of Wisconsin. He previously held faculty positions at the North Dakota State University and at the Institute of Informatics in Poland. He has a 10-year experience in research, teaching, and consulting in Information Assurance (IA) and holds several IA certifications including Certified Information Systems Security Professional and SANS Institute GIAC Incident Handler. He also serves on the SANS GIAC advisory board. Dr. Piotrowski is a graduate of the Federal Executive Institute, and the Harvard Kennedy School Cybersecurity Policy and Technology program.

**KEVIN JOHNSTUN** is an education program specialist in the Office of Educational Technology at the U.S. Department of Education. His work focuses on developing advanced research and development capabilities within the Department of Education and understanding how educators can leverage artificial intelligence to improve student outcomes. He previously led the office's work on accessibility and assistive technology as well as several projects related to teacher professional development, open educational resources, and digital literacy. He was also previously a research analyst for the President's Council of Advisors for Science and Technology in the White House. He holds an M.S. in instructional psychology and technology and a B.A. in philosophy from Brigham Young University.