

Presented by Northeastern Africa Global Initiative, Northeastern Center for Emerging Markets, and Northeastern African Student Organization

Africa 2023 - Sustainability, Climate Change and Al: Trends in Entrepreneurship, Research and Talent

Dear Africa Business Week participants,

It is our great honor and privilege to welcome you to the Northeastern University conference: Africa 2023: Sustainability, Climate Change and Al!

Over the next two days, you will have ample opportunity to connect and explore the key themes of entrepreneurship, research and talent with our guest speakers and members of the audience. You will hear from industry leaders, research experts and youth talent about their exhilarating personal journeys and endeavors in African countries.

This hybrid event will offer you insight to our global networks here and abroad. For those who will join us at the Curry Ballroom, you will experience the heart of our Boston campus, full of activity! We hope you will be inspired, make connections and have a fantastic time.

We would like to thank the Planning Committee, our students, and our volunteers for their dedication to design and execute this event. Heartfelt thanks to the many Northeastern Colleges and departments who sponsored this event. Together, we are promoting the value of global partnerships, ingenuity and entrepreneurial spirit in tackling the huge challenges of our time. Everyone has a role to play.

Thank you for being part of Africa 2023: Sustainability, Climate Change and Al!

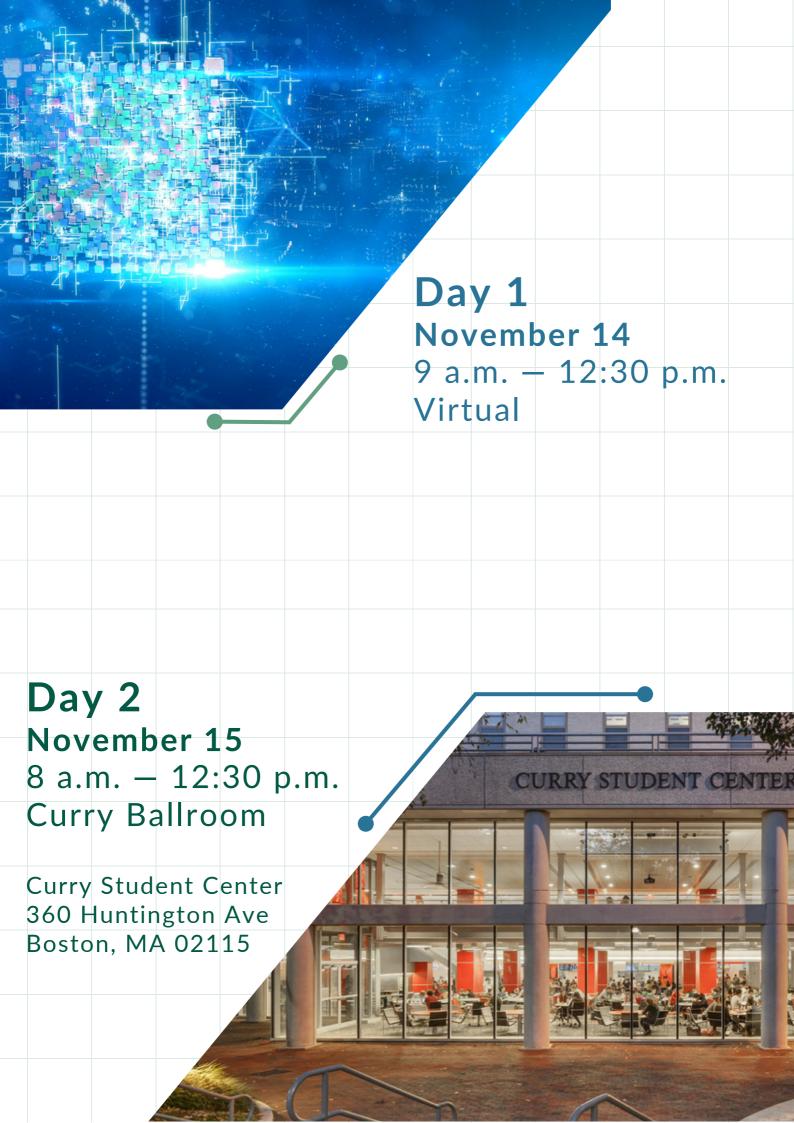
Warm regards,

Dr. Hazel Sive, **PhD**, Chair, Africa Global Initiative and Dean Northeastern University College of Science

Ravi Ramamurti, Director, Center for Emerging Markets

Magdaline Mwangi, Co-President, NASO

Judy Kariuki, Co-President, NASO



Welcome 9:00 a.m. Hazel Sive, PhD 9:10 a.m.

Keynote: Building Sustainable Companies in Africa: Lessons from the Ground

Mezuo Nwuneli

Unlocking Opportunities: 9:45 **Industry in Africa** a.m.

Moderator Jared Auclair

Speakers Ayo Oyebanjo, Linda Zwane, Henry Ogbuagu, Esther Chibueyin Fagbo, Chinekwu Owoh

Hubs of Entrepreneurship: 10:50 **Centers and Student Organizations** a.m.

Ravi Ramamurti, Center for Emerging Markets

Richard O' Bryant, John D. O'Bryant African-American Institute

Judy Kariuki, Northeastern African Student Organization (NASO)

Leah Bamberger, Climate Justice and Sustainability Hub

11:30 **Climate Change and Innovation:** Tanzania in the Spotlight a.m.

> Speakers Auroop Ganguly, Philbert Luhunga, Pius Zebhe Yanda

12:25 Closing Remarks and Introduction to Day 2

Omosefe Enobakhare

p.m.

DAY 1 **VIRTUAL** 8:00 Registration, Breakfast a.m. and Networking

9:00 Welcome Back a.m.

Gbemi Disu

9:10 Keynote: Youth, Innovation, and Climate a.m. Resilience: The African Perspective

Pelkins Ajanoh

9:45 Discovery, Innovation and a.m. Impactful Research in Africa

Moderator Kim Holloway

Speakers Lee Makowski, Killion Mokwete, Jessica Chukwuka, Cátia Dombaxe

10:40 Youth Advocacy and the Biga.m. Challenges: Experiential Journeys

Moderator Richard Wamai

Speakers Ademidun Ajibade, Mohamed Kante

11:05 Al and Generative Al: the Why, What, How, a.m. and the Economic and Technology
Opportunities for the Knowledge Economy

Usama Fayyad

11:50 Closing Remarks and Networking

a.m. Ravi Ramamurti

DAY 2
CURRY BALLROOM





HAZEL SIVE

Chair, Africa Global Initiative; Dean, College of Science

Dr. Hazel Sive, a renowned biologist, became Dean of Northeastern University's College of Science in June 2020. Previously, she served as a Professor of Biology at MIT for 28 years and was associated with the Whitehead Institute for Biomedical Research. Dr. Sive is a pioneering researcher, award-winning educator, and entrepreneur in higher education. Originally from South Africa, she earned her BSc in Chemistry and Zoology from the University of Witwatersrand and received an honorary doctorate in 2022. With a PhD from Rockefeller University, she is also a MacVicar Faculty Fellow, MIT's highest undergraduate teaching honor. She held various leadership roles at MIT and currently chairs the Africa Global Initiative at Northeastern.



GBEMI DISU

Vice President, Global Network Expansion

Gbemi Disu joined Northeastern University in 2023 as the Vice President for Global Network Expansion. Previously, she served as Executive Director of Carnegie Mellon University in Africa, where she provided administrative, strategic and operational leadership, and Chief Business Officer at George Mason University Korea, where she played a key role in achieving strategic growth and financial sustainability for the campus. Disu has over 15 years of experience in higher education, financial services and energy sectors in several countries across four continents. Disu received her Bachelor of Science in Economics and International Business from Arizona State University. She received her MBA in Global Management from Thunderbird School of Global Management.





MEZUO NWUNELI

Keynote Speaker

Mezuo Nwuneli is the Managing Partner of Sahel Capital Agribusiness Managers, a food and agribusiness focused private investment firm investing across sub-Saharan Africa. Prior to founding Sahel Capital, Mezuo held roles at J.P. Morgan & Co., Ocean and Oil Holdings, and AFIG Funds. He is a non-executive Chairman/Co-Founder of AACE Foods, a Nigeria based food manufacturing company, and Co-Founder/non-executive director at Sahel Consulting, an agriculture focused management consulting firm. Mezuo also serves on the Nigeria National Advisory Board for Impact Investing, and on the boards of the African Private Equity and Venture Capital Association (AVCA) and the Private Equity and Venture Capital Association, Nigeria (PEVCA). He is also an independent director at Hygeia HMO Ltd and First World Communities Ltd. He is an Eisenhower Fellow and an Archbishop Tutu Fellow. He holds a Master in Business Administration (MBA) from Harvard Business School, and received a B.Sc. in Industrial Management, with a minor in Information Systems, from Carnegie Mellon University. He was honored by Harvard Business School in 2021 with its distinguished Alumni Achievement Award.



PELKINS AJANOH

Keynote Speaker

Pelkins is a scientist, inventor, and entrepreneur. He was born in Cameroon and graduated from high school with the highest score in the country in the Advanced Level exam – Cameroon's high school leaving exam. Afterwards, he immigrated to the US where he obtained a BSc. in mechanical engineering from Massachusetts Institute of Technology (MIT). Pelkins continued to obtain an MS/MBA from Harvard John A. Paulson School of Engineering and Applied Sciences and Harvard Business School, where he graduated with honors and was supported by the Soros Fellowship. Pelkins is the founder of CassVita – a social enterprise that has developed a novel biotechnology for increasing the shelf-life of cassava from 3 days to 18 months. CassVita partners with over 1,000 farmers in West Africa and has been able to increase their earnings by as much as 400%. Pelkins' work has been recognized by MIT, Harvard, the New York Times, the African Development Bank, and President Biden.

Unlocking Opportunities: Industry in Africa



JARED AUCLAIR

Moderator

Jared R. Auclair, PhD is currently the Vice Provost Research Economic Development and Director of Bioinnovation in the Office of the Provost at Northeastern University. As Vice Provost Research Economic Development, Dr. Auclair works to strengthen the bonds between our education and research missions by strengthening the integration of work-integrated credentialed learning and use-inspired research, co-creating with communities and partners while expanding our global mindset. As Director of Bioinnovation, Dr. Auclair works to leverage important University activities around biotechnology, bringing together experts from a wide range of disciplines and backgrounds to advance the expansion of Northeastern life sciences programs. In addition to these roles, Dr. Auclair holds a faculty appointment in the Department of Chemistry and Chemical Biology where he collaborates with academic researchers, industry and government in the area of biopharmaceutical development and analysis.



AYO OYEBANJO

Speaker

Ayoola Babade Oyebanjo (ABO) holds a Bachelor's of Science degree in Business Administration with a dual concentration in Finance & Entrepreneurship from the D'Amore-McKim School of Business, Boston USA, and is currently a candidate for a Master's of Science in Artificial Intelligence & Ethics at Northeastern University, London. Prior to his recent educational development, ABO was an Assistant Manager at the Central Bank of Nigeria where gained valuable experiences in a wide-array of industry fields over the 8 years he worked in both Lagos office and Abuja head office. ABO is actively involved within the Northeastern community and is a serving member of various societies, namely two, being the Young Global Leader (YGL) and Africa Global Initiative (AGI). Having been born & raised in the Middle-East by his West African parents and educated both in the United States and the United Kingdom, in his free time, ABO thoroughly enjoys travelling the world and discovering new cultures, music and arts.



LINDA ZWANE

Speaker

Linda Zwane is a Data and Strategy professional who specializes in optimizing dynamic systems. She is a Fulbright Fellow and DCAM Certified data executive with experience building strategy. Her fifteen year career spans business development, foreign exchange and money markets trading, strategy execution and most recently, establishing a Data and Analytics function, requiring her to establish and evolve strategy and advance staff competencies. Linda is the Head of Data and Analytics for Standard Bank Eswatini, part of the largest banking group on the African continent. She partners with the Executive to innovate customer solutions, optimize products and services using data, use automation for operational efficiency and drive strategy. Ms Zwane is a Northeastern University alumna in the College of Engineering with a Masters in Operations Research. Her first degree is in Mathematics and Applied Mathematics from the University of the Witwatersrand.



HENRY OGBUAGU

Speaker

Henry Ogbuagu is Founding Partner at Vencapital, a VC accelerator program that helps minorities and women build career pathways into venture finance. As a social entrepreneur with a background in public policy, Henry started Vencapital to build a pipeline of diverse talent joining the venture workforce and ultimately expand the pool of diverse emerging fund managers starting new funds. Henry also serves as a mentor in various startup programs including Techstars, and Plug and Play. His work and career experience spans across industries from policy to international business consulting, technology, startup operation and venture capital.



CHINEKWU OWOH

Speaker

Chinekwu Owoh, currently pursuing her Ph.D. at Northeastern University, is a scholar with a focus on Applied Economics, specifically in the domains of Labor Economics, Crime Economics, and Development. Her academic journey began at the University of Ghana in Accra, Ghana, where she earned her Bachelor's degree. She further honed her expertise with a Master's in Economics from the University of Hamburg in Germany. Chinekwu's experience is informed with a background spanning four years in both lecturing and research in Nigeria. Her academic insights are complemented by her active involvement as a member of the Native Insights Research Group, where she contributes to economic and policy research efforts tailored to the Nigerian context.



ESTHER CHIBUEYIN FAGBO

Speaker

Esther Fagbo is a passionate environmentalist, partnership manager, and HR leader with over half a decade of experience. She is working to build a more sustainable future for Nigeria and the world. Esther is the Head of Human Resources and Partnerships at Wecyclers Nigeria Limited, a social enterprise incentivising low-income communities to recycle. She established the HR department from the ground up, developing HR policies and procedures, recruiting and onboarding employees, and managing the compensation and benefits program. She also automated the payment of salary and organized the inaugural company retreat. Through her leadership at Fair Plastic Alliance, Esther has created an inclusive circular economy that supports the dignity of waste pickers in Nigeria.

Hubs of Entrepreneurship: Centers and Student Organizations



RICHARD O'BRYANT

John D. O'Bryant African-American Institute

Dr. Richard L. O'Bryant is director of the John D. O'Bryant African American Institute at Northeastern University – named in remembrance of his dad. At the John D. O'Bryant African American Institute Dr. O'Bryant oversees educational and cultural programs, services and activities focused on African American students. Under his vision and leadership, the John D. O'Bryant African American Institute has become more engaged with many aspects of Northeastern University including academic components, community outreach efforts, connecting with the NU Black alumni and the enhancement of the breadth and depth of programs and services offered. Dr. O'Bryant is also a lecturer in the Department of Political Science, the School of Public Policy and Urban Affairs and the College of Professional Studies.



RAVI RAMAMURTI

Center for Emerging Markets

Ravi Ramamurti is University Distinguished Professor of International Business & Strategy and founding Director of the Center for Emerging Markets at Northeastern University. Ramamurti founded NU's Center for Emerging Markets (CEM) in 2007 and has headed it since then. Today, CEM is a leading center of its kind that supports faculty research, organizes international seminars and conferences, promotes student exposure to emerging markets, and organizes outreach events for practitioners. CEM also has several initiatives in India, supported by a generous gift from Vivek and Vandana Sharma, and a China Lecture and China Insight series. CEM is guided by a distinguished advisory board of CEOs and CXOs of multinational firms.



JUDY KARIUKI

Northeastern African Student Organization (NASO)

Judy Kariuki is a 5th year Kenyan-American Health Science student with a minor in Biology and aspires to attend Optometry school shortly after her undergrad. She is currently the Co-President of NASO and has served in the NASO executive board for 3 consecutive years. Her hope is to continue to amplify the narratives of the African diaspora, weaving its rich heritage into both her academic and professional pursuits.



LEAH BAMBERGER

Climate Justice and Sustainability Hub

Leah Bamberger is Executive Director of the Climate Justice and Sustainability Hub at Northeastern University. In this role, she is leading the University's efforts to develop and implement a climate justice strategy that begins to align campus operations and development, and engage academics, research, and student resources with community priorities and concerns around sustainability and climate justice objectives. Prior to joining Northeastern, Leah served as the Director of Sustainability for the City of Providence, Rhode Island for seven years. Under her leadership and in partnership with frontline community members, the office transformed its work to focus on environmental justice and center racial equity. She was also a co-creator of Providence's 2019 Climate Justice Plan that was recognized nationally, and continues to serve as a model for communities all over the United States. Prior to her role in Providence, Leah managed the City of Boston's citywide sustainability initiative, Greenovate Boston, and led the development of Boston's 2014 Climate Action Plan.

Climate Change and Innovation: Tanzania in the Spotlight



AUROOP GANGULY

Speaker

Auroop R Ganguly is a College of Engineering Distinguished Professor at Northeastern University in Boston, MA, where he directs the AI for Climate and Sustainability (AI4CaS) focus area within the Institute for Experiential AI (EAI), as well as the Sustainability and Data Sciences Laboratory (SDS Lab), and until recently, co-directed the Global Resilience Institute (GRI). He has a joint appointment as a Chief Scientist at US DOE's Pacific Northwest National Laboratory in Richland, WA. Ganguly has about 25 years of full-time professional experience spanning Oracle Corporation for 5+ years, the Oak Ridge National Laboratory for 7 years, and Northeastern University 12+ years. Together with his former PhD students, he co-founded a successful startup on urban climate analytics and he is currently advising another startup on AI-based weather prediction.



PHILBERT LUHUNGA

Speaker

Dr. Philbert Modest Luhunga holds a BSc, MSc. and Ph.D. in meteorology specializing in climate change sciences and atmospheric dynamics including turbulence motions in the atmospheric boundary layers. Dr. Luhunga worked at the Tanzania Meteorological Authority (TMA) as a climate scientist at the Directorate of Research and Applied Meteorology and is now a Chief Research Officer at the Tanzania Commission for Science and Technology (COSTECH). He is actively involved in various scientific committees and organizations, including the Tanzania National Technical Committee, United Nations Technical Advisory Mission, and the Tanzania Meteorological Society. Dr. Luhunga's research focuses on climate change impacts on human life and the environment, with experience in international projects to enhance climate change resilience in various sectors. He has also contributed to IPCC assessment reports and the State of Global Climate document in the Bulletin of the American Meteorological Society.



PIUS ZEBHE YANDA

Speaker

Pius Zebhe Yanda is a Research Professor in Physical Geography at the University of Dar es Salaam. He has served the University of Dar Es Salaam in different academic positions for more than 36 years. Professor Yanda has worked extensively in natural resources management, environment and climate change related studies in the African region as well as in Tanzania. He has a track record in leading multi-disciplinary international team's research projects and programs in natural resources management, environmental as well as climate change. Professor Yanda is renowned for his leadership in multidisciplinary international research projects and programs on natural resource management, environmental issues, and climate change, and was appointed member of the advisory board of the Norwegian Agency for Development Cooperation—NORAD.

Discovery, Innovation and Impactful Research in Africa



KIM HOLLOWAY

Moderator

Kim Holloway joined Northeastern University in March 2020 as the inaugural Vice Provost for Research Development, working in the Office of the Sr. Vice Provost for Research. Prior to joining Northeastern, Kim started the office of Research Development at Cornell University in 2016. Her expertise and role in supporting large center grant development efforts contributed to over \$216M in sponsored funding flowing to the institution. Kim was formerly a faculty member in the department of Biomedical Sciences at the Cornell University College of Veterinary Medicine and had a federally funded research program studying the complex processes contributing to meiotic recombination in mammalian gametogenesis. She completed her PhD in human genetics with Professor Sir Alec Jeffreys at the University of Leicester, UK, and her postdoctoral studies in reproductive genomics at Cornell University (Ithaca) under the mentorship of Dr. Paula Cohen.



LEE MAKOWSKI

Speaker

Lee Makowski is a Professor and Chair of Bioengineering at Northeastern University. He earned his B.S. in Physics from Brown University and his Masters and Ph.D. in Electrical Engineering from Massachusetts Institute of Technology. After conducting postdoctoral research in Structural Biology at Brandeis University, he taught at Columbia University and Boston University. He later served as Director of the Institute of Molecular Biophysics at Florida State University. From 1998 to 2010, he worked at the National Science Foundation and then at Argonne National Laboratory, where he held positions including Biosciences Division Director and Senior Scientist. He joined Northeastern in 2010. He has published over 100 scientific research papers and numerous review articles, specializing in innovative analyses of biophysical data with a focus on x-ray and neutron scattering and x-ray imaging.



KILLION MOKWETE

Speaker

H. Killion Mokwete teaches design studios across undergraduate and graduate thesis research at Northeastern University. His teaching leverages community-based learning approaches through engaging with local communities both in Boston and internationally where his professional practice and research lies. His studios have travelled and engaged with community partners in Haiti, and locally his students continue to partner with neighboring community groups in Roxbury, Dorchester, East Boston and Lynn. He has previously taught place-based studios at Mass Art and community practice studios at the Boston Architectural College (BAC), and has worked on urban design projects in both Ghana and his native home country of Botswana.



JESSICA CHUKWUKA

Speaker

Jessica is a Ph.D. student in Chemical Engineering at Northeastern with a focus on material characterization, polymer science, composites, process simulation, and thermal analysis. She obtained her BEng. and MSc. in Chemical Engineering from Covenant University, Nigeria, and Ohio University respectively. Her current research explores sustainable alternatives for utilizing coal as a filler in phenolic resin composites to enhance their thermal, mechanical, and structural properties. The objective is to contribute to efforts aimed at reducing greenhouse gas emissions, particularly in the context of coal's role in energy generation, while expanding the utilization of phenolic resins in the composites industry. Jessica is skilled in organization and leadership and through serving various leadership roles during her undergraduate and graduate years, has proven to be dedicated to driving projects to completion with attention to detail and efficiency. During her free time, Jessica enjoys traveling, meeting new people, and watching Korean dramas.



CÁTIA DOMBAXE

Speaker

Cátia P. Dombaxe is Angolan and a Ph.D. Candidate in the Department of Biomedical Engineering at Cornell University. She has a degree in Chemistry with a concentration in Forensic Science from Methodist University and has worked for Eurofins Lancaster Laboratory, a contractor for Regeneron Pharmaceuticals. Her research is focused on regenerative medicine and tissue engineering. She is fabricating a biomaterial based on goldfish extracellular matrix proteins to aid in tissue regeneration and functional recovery after spinal cord injury in mice. At Cornell, Cátia is heavily involved with the Cornell University Office of Inclusion and Student Engagement and DEI causes. Dombaxe is also an entrepreneur working on two different ventures, one to provide STEM education to underrepresented communities in Angola, and the other to integrate innovative biomaterials with proprietary Angolan plant extracts to create a unique skincare product line targeting skin hyperpigmentation in black women. Outside of her professional career, Cátia is an avid traveler, photographer, and mentor.

Youth Advocacy and the Big Challenges: Experiential Journeys



RICHARD WAMAI

Moderator

Richard Wamai, Ph.D., is a Professor at Northeastern University where he co-leads the Integrated Initiative for Global Health. He has trained in European (Helsinki, Oxford, Uppsala, London School of Economics) American (Harvard, Johns Hopkins, World Bank) and African (Nairobi, Egerton, Kumasi) institutions. He works in global health research, training, implementation and policy focusing on HIV/AIDS, neglected tropical diseases, non-communicable diseases, and health systems and policy in multiple countries across sub-Saharan Africa. His continuing scholarly interests are in evidence-based strategies for evaluating, preventing and responding to diseases and health systems challenges particularly in Africa in the context of epidemiological and eco-demographic transitions. He is driven by a passion for ending neglect for disease- and- poverty-free communities and established the African Centre for Community Investment in Health based in Kenya. Wamai has more than 70 publications in the global health and development area.



ADEMIDUN AJIBADE

Speaker

Ademidun Ajibade CSSH'23 is a graduate of the International Affairs MA program at Northeastern University. Originally from Nigeria, she is passionate about youth led initiatives to transform the continent. A firm believer of the need for collaboration and homegrown initiatives driven by multi level partnership to solve the issues that plague the continent and the world at large. Ademidun currently works as a case specialist in Boston, resettling new refugees and immigrants into the Boston area.



MOHAMED KANTE

Speaker

Mohamed T Kante is an accomplished Engineering Technologist passionate about empowering others and creating meaningful change. With over a decade of experience driving results in Fortune 500 corporations, startup ventures, and nonprofit organizations, he leverages his technical expertise, global perspective, and entrepreneurial mindset to unlock human potential. As an award-winning entrepreneur and program manager, Mohamed has led complex projects and delivered integrated solutions worldwide. He earned a BS in Electrical Engineering from Northeastern University and is pursuing a Master from Harvard focused on Innovation and Entrepreneurship. Mohamed has founded three ventures, honing his business development and leadership abilities. Recognized for his impact, Mohamed enjoys motivating entrepreneurs and innovators as a sought-after speaker.

Al and Generative AI: the Why, What, How, and the Economic and Technology Opportunities for the Knowledge Economy



USAMA FAYYAD

Speaker

Usama joined Northeastern University Khoury College of Computer Science as Professor of the Practice, and the Office of the Provost as the Inaugural Executive Director of the Institute for Experiential AI. He continues as Chairman of Open Insights, a company he founded as a technology and consulting firm in 2008. Leveraging open source, bigData technology, and strategic consulting, Open Insights deploys data-driven solutions to grow revenue from Data assets through BigData strategy, new business models on data assets, and deploying data science, AI/ML solutions. Usama served (2017-2019) as Co-Founder & CTO at OODA Health, Inc a VC-funded company aiming to liberate the healthcare system from administrative waste by leveraging AI/automation to create real-time/retail-like experience in payments in healthcare.

Africa Business Week Planning Committee



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