

RESEARCH TECHNICAL ASSISTANCE CENTER

DIGITAL TOOLS AND THE FUTURE OF INTERNATIONAL DEVELOPMENT

• May 17, 2019 • J.W. Marriott Washington DC •
1331 Pennsylvania Avenue, NW, Washington, DC 20004

SPEAKER AND MODERATOR BIOGRAPHIES



Alma Crumm Golden, M.D., Opening Remarks
Executive Director, U.S. Global Development Lab
USAID

Alma Crumm Golden is Executive Director of the U.S. Global Development Lab, where she oversees the Lab and its operations. A pediatrician by training, Dr. Golden has worked in private pediatrics, indigent health services, academic medicine, public health, healthcare administration and health policy. A graduate of the University of Texas Medical Branch (UTMB), Dr. Golden later became the director of pediatric services for UTMB's Maternal and Child Health Program, establishing and managing 16 clinics in south and east Texas serving unfunded, Title V and Medicaid

children and families. During her career, Dr. Golden has served as faculty at both the University of Texas Medical Branch and Texas A&M Health Science Center. She also served as a Presidential Appointee from 2002 to 2006 as Deputy Assistant Secretary for the Office of Population Affairs in HHS, which included Family Planning, Teen Pregnancy Prevention, Embryo Adoption and Abstinence Education.



Ticora V. Jones, Host and M/C
Director, Center for Development Research
U.S. Global Development Lab | USAID

Dr. Ticora V. Jones is the Director of the Center for Development Research in the U.S. Global Development Lab at USAID. Dr. Jones manages a portfolio of university engagement programs designed to build bridges between development professionals and universities through a multidisciplinary lens on science, technology, innovation and entrepreneurship. Beginning in 2009 as a AAAS Diplomacy, Security, and Development Fellow, she helped manage the establishment of an Agency-wide agenda for science and technology through policy and programming designed to elevate USAID's presence in this area. Prior to

joining USAID, Dr. Jones served as the 2008-2009 Materials Societies Congressional Fellow for Senator Russell D. Feingold (D-WI) where she worked on energy and environment issues. Before beginning her congressional fellowship, Dr. Jones conducted post-doctoral research focused on creating and characterizing nanoparticle/composite-based functional materials at Lawrence Livermore National Laboratory. Dr. Jones earned her BS degree in Materials Science and Engineering from MIT and her PhD in Polymer Science and Engineering from the University of Massachusetts at Amherst.





Erik Wibbels, Organizer and Speaker
Professor of Political Science
Duke University

Erik Wibbels is the Robert O. Keohane professor of political science at Duke University and the co-general editor of the Cambridge Studies in Comparative Politics series. His research focuses on development, local governance and political geography. He also works with international donors and implementers to improve the design and evaluation of governance programming and is a founding member of the DevLab@Duke. Current major projects include combining surveys and satellite imagery to identify slums

in India to understand the conditions under which residents achieve property rights and attract public services and a USAID-funded effort to integrate machine learning, forecasting and rigorous field interventions to early-identify, and defend against, government crackdowns on civil society.



Aubra Anthony, Moderator and Speaker
Strategy & Research Team Lead
USAID

Aubra Anthony leads the Strategy & Research team in USAID's Center for Digital Development within the Global Development Lab. Her team investigates the social, political, and ethical dimensions accompanying the introduction of emerging technologies in developing economies. Her portfolio within CDD has spanned Machine Learning and Artificial Intelligence, Digital Identity, Open Data, the Data Revolution, and the Global Partnership for Sustainable

Development Data. Aubra received her Ph.D. from the University of Texas at Austin and worked in academic research in physics and cosmology before turning to technology policy as a Research Affiliate with the C.U. Boulder Center for Science and Technology Policy Research. She was a Hatfield Scholar with the Center for Democracy and Technology and a AAAS Science & Technology Policy Fellow with USAID's Center for Data, Analysis & Research before joining the Center for Digital Development as Senior Data Advisor in 2015.



Sabeen V. Dhanani, Moderator
Senior Digital Development Advisor
USAID

Sabeen V. Dhanani currently serves as a Senior Digital Development Advisor at USAID. She was previously the Team Lead for Digital Development for Feed the Future, a cross-disciplinary team focused on integrating digital technologies and innovative solutions into Feed the Future, the U.S. Government's global hunger and food security initiative. Prior to joining USAID, Sabeen was a strategy consultant with both the Innovation Lab and the Special Economic Zones Group at the World Bank. From 2008 to 2012, Sabeen was a Senior Strategy Consultant with the Monitor Group (now

Monitor Deloitte), based in Dubai, where she advised government and private sector clients across the Middle East and Africa on policy, business strategy, organizational development, competitiveness, and innovation.



Craig Jolley, Moderator
Data Scientist
USAID

Craig Jolley is a Data Scientist at USAID's Center for Digital Development. His work focuses on two major areas. One is in supporting the responsible adoption of potential of emerging technologies in international development; recent projects have focused on machine learning, blockchain technologies, biometrics, digital financial services, and rooftop solar energy. The other is on the application of integrated models of economic, demographic, and climate systems to support USAID's planning and programming. Prior to coming to USAID in 2014, Dr. Jolley studied mathematical models of biological rhythms at RIKEN in Kobe, Japan. He received his PhD in Physics from Arizona State University.

Peter Richards, Moderator
Economist
USAID
(photo not available)

Peter Richards has worked for more than a decade at the intersection of economics, remote sensing and environmental and agricultural-governance. Today, as an economist with USAID's Bureau for Food Security, he is responsible for identifying and developing innovative solutions and insights for longstanding, and often intractable, analytical problems and, more broadly, incorporating new analytical tools into USAID's agricultural and resilience portfolio. Prior to joining USAID, at Brown University's Institute at Brown for Environment and Society, his work focused broadly on the drivers of deforestation in the Brazilian Amazon and the policies that governed and guided forest loss in the region. Peter holds a Ph.D. in Geography and an MS in Agriculture, Food and Resource Economics, both from Michigan State University. Many years ago he once served as a Peace Corps volunteer in Rural Paraguay, where he taught beekeeping and worked with a small honey cooperative.

PANELIST BIOGRAPHIES



Alex Beyers
Product Design Executive
Harambee Youth Employment Accelerator

Alex is product design executive for Harambee Youth Employment Accelerator, a South African based organization solving youth unemployment through technology and partnerships. At Harambee he is responsible for designing and integrating technology and operational product solutions, including the use of emerging technologies. Alex spent the last decade in economic development, working with the UN World Food Program; various pan-African organizations, and the governments of South Africa, Ghana, Namibia and Mozambique. In South Africa, he has worked with both the government and private sector on school system design, state-owned company effectiveness and regional infrastructure development strategies. Previously, Alex worked as strategic consultant at McKinsey & Company in Africa and Europe, and as actuary in the health and insurance sectors. He is a (non-practicing) actuary through the Institute of Actuaries in London, holds an MBA from Columbia University in New York, and a BCom (Hons) in economics and mathematics from the University of Pretoria.



Marshall Burke
Assistant Professor, Department of Earth System Science
Deputy Director, Center on Food Security and the Environment
Stanford University

Marshall Burke is Assistant Professor in the Department of Earth System Science and Center Fellow at the Center on Food Security and the Environment at Stanford University, and Research Fellow at the National Bureau of Economic Research. His research focuses on social and economic impacts of environmental change, and on the economics of rural development in Africa. His work regularly appears in both economics and scientific journals, including recent publications in *Nature*, *Science*, and the *Quarterly Journal of Economics*.



Ernesto Calvo
Professor and Associate Chair, Department of Government and Politics
University of Maryland, College Park

Ernesto Calvo, Professor of Government and Politics at the University of Maryland, Director of the Interdisciplinary Lab for Computational Social Science (iLCSS), and Field Editor of the Journal of Politics (JOP-Comparative). His work uses big data to study comparative political institutions, political representation, and social networks. His research has been recognized with the *Lawrence Longley Award*, the *Leubbert Best Article Award*, and the *Michael Wallerstein Awards* from the *American Political Science Association*. He is currently working on a book project on the activation of political content in social media.



Kathleen M. Carley
Professor, Computer Science, Engineering and Public Policy, Social and Decision Sciences
The Heinz College, and Tepper School of Business

Professor Kathleen Carley specializes in network science, agent-based modeling, and text-mining. within a complex socio-technical system, organizational and social theory framework. In her work, she examines how cognitive, social and institutional factors come together to impact individual, organizational and societal outcomes. Using this lens she has addressed a number of policy issues including counter-terrorism, human and narcotic trafficking, cyber and nuclear threat, organizational resilience and design, natural disaster preparedness, cyber threat in social media, and leadership. She is the recipient of the lifetime achievement award in Mathematical Sociology, the Simmel award in Social Networks from the International Network for Social Network Analysis, and the Allen Newell Award for Research Excellence.



Scott de Marchi
Professor of Political Science and Director of the Decision Science program
Duke University

Scott de Marchi is Professor of Political Science and Director of the Decision Science program at Duke University. His work is currently funded by the Department of Defense, the National Science Foundation, and USAID. His research focuses on mathematical methods, especially bargaining theory, computational social science, machine learning, and mixed methods. Substantively, he examines decision-making in contexts that include the American Congress, coalition and crisis bargaining, interstate conflict, and voting behavior. At Duke, he is the founder (and sometimes director) of the Modeling Economic and Political Systems Focus program (MESS) and the Decision Science program. He has been an external fellow at the Santa Fe Institute and the National Defense University.



Daniel Frey
Professor of Mechanical Engineering; MIT D-Lab Faculty Research Director
Massachusetts Institute of Technology

Daniel Frey is a Professor of Mechanical Engineering and the Co-Director of Experimental Design research in the SUTD-MIT International Design Center, and the Faculty Advisor for Suitability Research at the MIT-based Comprehensive Initiative on Technology Evaluation (CITE). He is actively involved in design of engineering devices for the developing world, and has worked intensively with colleagues, administrators, and the Singapore Ministry of Education to establish a major new research center for engineering design.



Jeremy Gillula
Tech Project Director
Electronic Frontier Foundation

Jeremy Gillula began his career in academia doing research in the fields of robotics and machine learning. As a participant in the Defense Advanced Research Projects Agency (DARPA) Desert Grand Challenge, he did work on computer vision systems and sensor fusion systems for unmanned autonomous ground vehicles. Since finishing his Ph.D., Dr. Gillula has turned his attention to the intersection of technology and civil liberties issues, including mobile devices, big data, net neutrality, and algorithmic fairness and transparency. He provides technical expertise to lawyers and activists who work on digital civil liberties, and has given a multitude of talks to conferences, invited groups, and policymakers.



Ignace Habimana-Kabano
Lecturer, Department of Applied Statistics
University of Rwanda

Ignace Habimana-Kabano currently works at the Department of Applied Statistics, and is the Head of Teaching at the African Centre of Excellence in Data Science, University of Rwanda. He focuses on statistical analysis in demography and public health.



William Hoffman
Associate Director and Head, Data-Driven Development
World Economic Forum

William Hoffman heads the World Economic Forum's initiatives on Data-Driven Development and the Global Agenda of the Information and Communications Technology sector. Based on the assumption that a hyperconnected world requires strengthened trust and new models of collaboration, William's focus at the Forum addresses the need for principle-based governance, demand-based innovation and the need for a balanced, inclusive and sustainable ICT ecosystem. In particular, he leads a multi-year initiative on personal data aimed at advancing the dialogue on the value of personal data and the need for enabling frameworks which are flexible, centered on the individual, and contextually driven.



Daniel Jiménez
Data Scientist, CGIAR Platform for Big Data in Agriculture
CGIAR

Daniel Jiménez is a pioneer of using artificial intelligence techniques for agricultural research at the International Center for Tropical Agriculture. Award-winning agronomist, he is currently coordinating the Data-Driven Agronomy Community of Practice of the CGIAR Platform for Big Data in Agriculture



Tim Kotin
Founder & CEO
Superfluid Labs

Tim Kotin is the founder and CEO of Superfluid Labs, a limited liability company registered in Kenya and Ghana with offices in Frankfurt, Nairobi and Accra. Superfluid Labs has developed a platform that enables businesses to identify and unlock hidden revenue opportunities and expand their services and impact to reach several millions more customers through the power of data and artificial intelligence (AI). Its team of data scientists, engineers and mathematicians have built a proprietary technology platform that mines customer transactional data to automatically predict future business events, reveal customer behaviors and trends, enhance engagement, reduce churn risk, and increase overall profitability. Its mission is to bring AI to businesses and consumers to drive economic growth.



Vipin Kumar
Regents Professor and William Norris Endowed Chair, Department of Computer Science and Engineering
University of Minnesota

Vipin Kumar is a Regents Professor at the University of Minnesota, where he holds the William Norris Endowed Chair in the Department of Computer Science and Engineering. Kumar's current research interests include data mining, high-performance computing, and their applications in Climate/Ecosystems and health care. He also served as the Head of the Computer Science and Engineering Department from 2005 to 2015 and the Director of Army High Performance Computing Research Center (AHPCRC) from 1998 to 2005. Kumar co-founded SIAM International Conference on Data Mining and served as a founding co-editor-in-chief of Journal of Statistical Analysis and Data Mining (an official journal of the American Statistical Association).



Mark Latonero
Research Lead, Data & Human Rights
Data & Society

Mark Latonero is the Research Lead for Human Rights at Data & Society. He is a fellow at Harvard Kennedy School's Carr Center for Human Rights Policy, Berkeley Law's Human Rights Center, and USC's Annenberg Center for Communication Leadership & Policy. Previously he was a research director and research professor at USC where he led the Technology and Human Trafficking Initiative. He has also served as the Innovation Consultant for the UN Office of the High Commissioner for Human Rights. Dr. Latonero works on the social and policy implications of emerging technology and examines the benefits, risks, and harms of digital technologies, particularly in human rights and humanitarian contexts.



Kristian Lum
Lead Statistician
Human Rights Data Analysis Group (HRDAG)

Kristian Lum is the Lead Statistician at the Human Rights Data Analysis Group (HRDAG), where she leads the HRDAG project on criminal justice in the United States. Kristian's research primarily focuses on examining the uses of machine learning in the criminal justice system and has concretely demonstrated the potential for machine learning-based predictive policing models to reinforce and, in some cases, amplify historical racial biases in law enforcement. She has also applied a diverse set of methodologies to better understand the criminal justice system.



Ernest Mwebaze
Lecturer, School of Computing & IT
Makerere University

Ernest Mwebaze is passionate about the application of computational techniques to solve real-world problems in developing countries. Presently, his specific research interests are in developing the nexus between computation and agriculture. Particularly he is interested in improving crop disease diagnostics through automation. The lack of quick and timely surveillance and diagnosis of crop diseases is a major factor in leading to high yield loss, particularly for the smallholder farmer. He is currently implementing a grant from the Bill & Melinda Gates foundation to develop improved automated tools and techniques for surveillance and diagnosis of viral disease in cassava crops.



Wanjiku Nganga
Senior Faculty Member, School of Computing Informatics
University of Nairobi

Wanjiku Nganga is a senior faculty member at the School of Computing and Informatics, University of Nairobi. She is the coordinator of the Computing for Development lab (C4DLab) that is active in ICT-related R&D, and which is housed at the School of Computing & Informatics in the Chiromo Campus of the University of Nairobi. Dr. Nganga's research interests span e-Governance, Technology-supported learning and training, the Knowledge Economy, Health Informatics and Machine Learning. She has published several papers in the areas of Machine Learning and ICT4D, and has recently edited a Springer volume. She has collaborated on several international projects as a computer systems specialist.



Mehdi Oulmakki
Faculty Computer Science
African Leadership University

Mehdi Oulmakki is a faculty member at the Department of Computer Science in the Rwanda campus. Before coming to ALU he worked as a software engineer with Amazon.com building and supporting tools that allowed our hundreds of thousands of employees to access documentation and support to perform their role better. Mehdi is about promoting and improving technical education, and making sure that African students, developers in particular, are put on the global map.



Enrique Piracés
Media and Human Rights Program Manager, Center for Human Rights Science (CHRS)
Carnegie Mellon University

Enrique Piracés manages the Media and Human Rights Program at the Center for Human Rights Science. He has been working at the intersection of human rights, science, and technological innovation for well over a decade, most recently as a visiting scholar at CHRS and previously as Vice President of the Human Rights Program at Benetech. His focus has been both the implications of the use of technology in the context of human rights as well as the opportunities that new scientific and technological developments open for NGOs and practitioners. His experience ranges from fact-finding and evidence gathering to data science and digital security. He is founder of RightsLab as well as co-founder of the Human Rights Technology Consortium.



Kate Starbird
Assistant Professor, Human Centered Design & Engineering
University of Washington

Kate Starbird is an Assistant Professor in the Department of Human Centered Design & Engineering (HCDE) and Director of the Emerging Capacities of Mass Participation (emCOMP) Laboratory. Kate's research is situated within human-computer interaction (HCI) and the emerging field of crisis informatics. More specifically, her research examines how people use social media to seek, share, and make sense of information after natural disasters (such as earthquakes and hurricanes) and man-made disasters (such as acts of terrorism and mass shooting events). This work touches on broader questions about the intersection of technology and society—including the vast potential for online social platforms to empower people to work together to solve problems, as well as salient concerns related to abuse and manipulation of and through these platforms and the consequent erosion of trust in information.



Kristin Tolle
Director of the Data Science Initiative
Microsoft Research

Kristin M. Tolle is the Director of the Data Science Initiative in Microsoft Research Outreach, Redmond, WA. Since joining Microsoft in 2000, Dr. Tolle has acquired numerous patents and worked for several product teams including the Natural

Language Group and Visual Studio. She has run several major initiatives from Biomedical computing and environmental science to more traditional computer and information science programs around natural user interactions and data curation. Dr. Tolle's present research interests include global public health as related to climate change, mobile computing to enable field scientists and inform the public, sensors used to gather ecological and environmental data, and integration and interoperability of large heterogeneous environmental data sources.



Kentaro Toyama
Professor of Community Information
University of Michigan School of Information

Kentaro Toyama is a Professor of Community Information at the University of Michigan School of Information, a fellow of the Dalai Lama Center for Ethics and Transformative Values at MIT, and author of *Geek Heresy: Rescuing Social Change from the Cult of Technology*. Previously, he was a researcher at UC

Berkeley and assistant managing director of Microsoft Research Lab (MSR) India, which he co-founded in 2005. At MSR India, he started the Technology for Emerging Markets research group, which conducts interdisciplinary research to understand how the world's poorer communities interact with electronic technology and to invent new ways for technology to support their socio-economic development.



Raju Vatsavai
Associate Professor in Geospatial Analytics, Department of Computer Science
North Carolina State University (NCSU)

Raju Vatsavai is a Chancellor's Faculty Excellence Program Cluster Associate Professor in Geospatial Analytics in the Department of Computer Science, North

Carolina State University (NCSU). He works at the intersection of spatial and temporal big data management, analytics, and high performance computing with applications in the national security, geospatial intelligence, natural resources, climate change, location-based services, and human terrain mapping. As the Associate Director of the Center for Geospatial Analytics (CGA), Raju plays a leadership role in the center's strategic vision for spatial computing research. Raju has more than 25 years of research and development experience in large-scale spatiotemporal data management and geographic knowledge discovery.



Serife (Sherry) Wong
AI Ethics Consultant, Founder of Icarus Salon
Stanford University

Serife (Sherry) Wong is currently working on AI ethics and governance research for the Center for Advanced Study in the Behavioral Sciences at Stanford University. She is the founder of Icarus Salon, an organization with a mission to broaden and bring together the technology ethics community. The organization's first project is mapping and categorizing the AI ethics ecosystem.



Samuel C. Woolley
Assistant Professor
School of Journalism, University of Texas at Austin

Samuel Woolley's research and writing center on emergent technology and communication. His work examines how automated online tools including bots and algorithms are used to enable both democracy and control. He studies how computational propaganda - the manipulation of public opinion using social media - is used in attempts to affect the flow of information during major political events. He is the Director of the Digital Intelligence Lab at the Institute for the Future (IFTF)—a 50-year-old think tank located in Palo Alto, California. He also has affiliations as a research associate at the Oxford Internet Institute, University of Oxford, as a visiting scholar at the Center for Information Technology Research in the Interest of Society (CITRIS) at the University of California at Berkeley, and as a research affiliate at the Project for Democracy and the Internet at Stanford University.