

Evidence to Action

Fintech for Global Development

May 9, 2016
1:00 - 6:30 PM
Google San Francisco





Welcome to Evidence to Action: FinTech for Global Development

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Agenda

1:00pm – 1:05pm	Welcome Hal Varian (Chief Economist, Google)
Session 1: Meeting the Basic Needs of the Ultra-Poor	
1:05pm – 1:10pm	Financial Lives of the Unbanked Temina Madon (Executive Director, CEGA)
1:10pm – 1:30pm	Ending Poverty with Digital Payments Michael Faye (Co-founder & Chair of Give Directly/Segovia)
1:30pm – 1:45pm	Targeted Crowds: Modernizing Statistical Data Collection with Local Expertise Joe Reisinger (CTO & Co-founder, Premise)
Session 2: The Building Blocks for Scaling FinTech	
1:45pm – 2:15pm	KEYNOTE: Innovation for Good—Opportunities, Challenges and Imperatives Terry Kramer (Anderson School of Management, UCLA; former Director & Regional President of Vodafone Americas)
2:15pm – 2:35pm	Targeting Anti-Poverty Programs Using Mobile Phone Data Josh Blumenstock (Information School, University of Washington)
2:35pm – 2:50pm	M-Pasandaz and Financial Inclusion Karim Khoja (CEO, Roshan)

2:50pm – 3:05pm	An Alibaba for Farmers: Linking Buyers & Sellers in Ugandan Maize Markets Craig McIntosh (School of Global Policy and Strategy, UC San Diego)
3:05pm – 3:20pm	Community Cellular Networks: Infrastructure for Financial Inclusion Kurtis Heimerl (University of Washington)
<i>20 Minute Coffee Break</i>	
Session 3: The Importance of Human Behavior	
3:40pm – 3:55pm	A Personal Touch in Text Messaging for Microfinance Melanie Morten (Economics, Stanford)
3:55pm – 4:10pm	Banking on Trust: How Debit Cards Enable the Poor to Save More Paul Gertler (Business and Public Health, UC Berkeley)
Session 4: What Happens Next?	
4:10pm – 4:20pm	Data, Startups, and Public-Private Partnership Carson Christiano (Director of Partnerships, CEGA)
4:20m - 5:20pm	Panel of Fintech Entrepreneurs Moderator: Kausik Rajgopal (Director, McKinsey & Co. Silicon Valley) Panelists: Shivani Siroya (CEO of Inventure), Ethan Bloch (CEO of Digit), Qiuyan Xu (Chief Data Scientist at Cignifi), Brian Warshawsky (COO at Fenix International)
5:20pm – 5:30pm	Closing Remarks Anand Radhakrishnan (Board Chair, CEGA)
5:30pm	<i>Reception</i>

Welcome

Welcome to the seventh annual “Evidence to Action” research symposium of the Center for Effective Global Action (CEGA).

Today’s program explores the role of financial technology (or “Fintech”) in alleviating poverty and promoting economic development in emerging markets. We are motivated by the immense challenge of bringing an additional 2 billion unbanked adults into the formal financial sector, and of ensuring that financial products and social protection schemes are designed to maximize welfare benefits while minimizing the risk of over-indebtedness.

Evidence to Action: Fintech for Global Development is designed to showcase the work that CEGA affiliates are doing in the Fintech space, in collaboration with a diverse network of public and private sector partners. By bringing together participants from as close as Silicon Valley, and as far away as Afghanistan, we hope to demonstrate the critical importance of collaboration in bridging the gap between Fintech innovation and social impact.

We hope you will come away with a better understanding of the collective progress we’ve made, the obstacles we still face, and the impacts we hope to achieve moving forward.

Thank you for joining us.



Temina Madon
Executive Director, CEGA



Edward Miguel
Faculty Director, CEGA

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CEGA's mission is to improve lives through innovative research that drives effective policy and development programming.



ABOUT CEGA

The **Center for Effective Global Action (CEGA)** is a hub for research on global development. Our network of 65 faculty affiliates extends across the University of California, Stanford University, and the University of Washington. CEGA researchers bring a scientific lens to global development, integrating empirical economic analysis with expertise in agriculture, energy, health, finance, engineering, and other areas to measure the impacts of large-scale social and economic development programs.

Evidence...

To effectively tackle poverty, decision-makers in emerging markets need to know which policies improve economic and social welfare, and which ones do not. CEGA researchers use randomized controlled trials (adopted from biomedical research) and other rigorous methods to measure the impacts of technologies and programs on livelihoods, economic growth, and well-being. The resulting evidence enables decision-makers to focus scarce resources on programs with the greatest return on investment. A commitment to open science and the use of novel measurement tools ensures that this evidence is both accurate and transparent.

... to action!

To effect social change, credible evidence must be transformed into better policies and programs. Toward this end, CEGA regularly convenes decision-makers to share ideas and information, and to stimulate the demand for new knowledge. At the same time, we work to strengthen local voices in policy debates by empowering developing country scholars to take the lead on ground-breaking research. Ultimately, CEGA works with governments, donors, non-profits, and entrepreneurs to scale proven interventions through targeted outreach.

For more information, please explore our website at www.cega.org.

Digital Financial Inclusion at CEGA

THE CHALLENGE

Despite the rapid expansion of mobile money and other financial technologies, 2 billion individuals around the world remain “unbanked,” or without access to modern financial services (World Bank 2014). Without secure and reliable ways to make payments, save, and borrow, low-income households and merchants rely on informal, costly methods for managing their financial lives. A growing body of evidence suggests that having access to secure financial services can lead to productive investments and income-generating activities. Yet our understanding exactly how (and to what extent) these interventions alleviate poverty and drive growth is extremely limited.

OUR APPROACH

While technology plays an essential role in accelerating development in low-income countries, we recognize that it is not a black-box solution for fighting poverty. A more nuanced understanding of financial behavior, financial regulation, and the demand for financial services is necessary to ensure that new technologies have their intended social impact. CEGA affiliates leverage close ties to Silicon Valley, as well as partnerships with financial institutions, governments, and NGOs around the world to design, evaluate, and scale digital financial services in emerging markets. In addition, we are committed to improving the quality of the evidence we generate by leveraging rich digital data streams and applying novel tools from computer science—including machine learning—to better understand what drives people to adopt (and use) financial services over time.

FINANCIAL INCLUSION LAB

At the heart of CEGA’s work on digital financial inclusion is the Financial Inclusion Lab (FIL), made possible by a novel partnership with Visa. Through FIL, CEGA affiliates gain access to banks and other financial service providers in emerging markets, enabling rigorous evaluation. By combining insights from data science, behavioral economics, finance, and econometrics, FIL researchers track global financial inclusion, measure the impacts of existing financial products and services, and design and test new innovations designed to “onramp” individuals into the formal financial sector. FIL is currently implementing projects in the Dominican Republic and Mexico.



BY THE NUMBERS

CEGA has **22** researchers
working on **40** financial inclusion projects
in **24** countries



■ CEGA financial inclusion projects

Speakers



Hal Varian (Host)

is the Chief Economist at Google, and holds academic appointments at UC Berkeley in business, economics, and information management. Hal is a fellow

of the Guggenheim Foundation, the Econometric Society, and the American Academy of Arts and Sciences. He was co-editor of the American Economic Review from 1987-1990 and holds honorary doctorates from the University of Oulu, Finland and the University of Karlsruhe, Germany. He received his S.B. degree from MIT and his M.A., in mathematics and Ph.D. in economics from UC Berkeley. Hal has taught at MIT, Stanford, Oxford, Michigan and other universities around the world.



Temina Madon

is the Executive Director of CEGA. Her research and training activities focus on health services, agricultural innovation, and technology design for emerging

markets. Dr. Madon has worked as a science policy advisor for the National Institutes of Health-Fogarty International Center, with a focus on enhancing research capacity in developing countries, and received her Ph.D. from UC Berkeley and her B.S. from MIT.



Michael Faye

is the co-founder and Executive Chairman of GiveDirectly (recognized by FastCompany as one of the top 10 most innovative companies in finance)

and co-founder and President of Segovia Technology, which provides software to manage bulk payments and cash transfer programs in emerging markets. Michael's work has been published in the American Economic Review, Brookings Papers on Economic Activity, Foreign Affairs, and others. He is a term member of the Council of Foreign Relations and was named one of Foreign Policy's 100 leading Global Thinkers in 2013. Michael has a PhD in Business Economics from Harvard, from where he also holds a BA in Math and Classics.



Terry Kramer (Keynote)

has 30 years of experience in telecommunications. For 18 of these years, Terry worked for Vodafone Group Plc/AirTouch Communications in a variety of roles domestically and

internationally. In June 2012, Terry received an appointment by President Obama to serve as Ambassador, Head of U.S. Delegation for the World Conference on International Telecommunications. He is currently an Adjunct Professor at UCLA's Anderson School of Management teaching two courses. He is also a Faculty Advisor in the Global Access Program and Strategic Management Research Programs. Terry holds a Bachelors degree in Economics from UCLA and MBA from Harvard University and resides in the San Francisco Bay Area.



Joe Reisinger

is the CTO & co-founder of Premise. He is an engineer and data hacker exploring the intersection of econometrics and machine learning. He holds a PhD in Computer Science from UT Austin and spent his

academic career building natural language understanding systems at Google Research and IBM T.J. Watson. Previously, Joe was Chief Scientist at Metamarkets. His research interests lie primarily in models of latent combinatorial structure in unlabeled data; particularly inferring semantic information automatically.



Joshua Blumenstock

is an Assistant Professor at the Information School, an Adjunct Assistant Professor of Computer Science and Engineering, founder and co-Director of the Data Science and Analytics Lab at the University of Washington, and affiliate

of CEGA. His research develops theory and methods for the analysis of large-scale behavioral data. Recent projects combine field experiments with big spatiotemporal network data to model decision-making in poor and conflict-affected regions. Joshua was a postdoc in the Dept. of Economics at Yale, has a Ph.D. in Information Science and a M.A. in Economics from UC Berkeley, and a B.S. in Computer Science and Physics from Wesleyan University.



Craig McIntosh

is a professor of economics at the School of Global Policy and Strategy at UC San Diego, co-director of the Policy Design and Evaluation Lab (PDEL), and an affiliate of CEGA. His research focuses on the

design of institutions that promote the provision of financial services to micro-entrepreneurs. He has conducted field evaluations of innovative anti-poverty policies in Mexico, Guatemala, Malawi, Rwanda, Uganda and Tanzania. Before earning his Ph.D. in agricultural and resource economics from UC Berkeley, McIntosh did aid work in Somalia with the International Rescue Committee and spent a year on a Fulbright grant as a research director at FINCA/Uganda, a



Melanie Morten

is an Assistant Professor in the Economics Department at Stanford University, and an affiliate of CEGA. Her research focuses on economic issues in low income countries, including the role

of remittances, formal and informal financial safety nets, and the causes and effects of internal migration. Morton received her PhD from Yale and was a post-doctoral fellow at the Minneapolis Federal Reserve. Currently, she is an Assistant Professor at Stanford's Department of Economics.

Speakers



Paul Gertler

is the Li Ka Shing Professor of Economics in the Haas School of Business at UC Berkeley, and Scientific Director of Financial Inclusion and Energy at CEGA. Dr. Gertler is an internationally recognized expert in impact evaluation, having published extensively on topics related to health, development, and poverty alleviation throughout Latin America and East Africa. Prior to coming to Berkeley, Dr. Gertler served as Chief Economist for Human Development at the World Bank and Founding Board Chair at the International Initiative for Impact Evaluation (3ie). He holds a PhD in economics from the University of Wisconsin.



Anand Radhakrishnan

joined Investcorp International, a global alternative asset manager in 2002, where he is currently Managing Director of Corporate Investment, based in New York. Previously, he was with The Carlyle Group in Washington, D.C., where he worked in the Venture Capital Group and at Robertson Stephens in San Francisco, as a member of the Technology Mergers and Acquisitions Team. He is currently the Chairman of the CEGA board, and also sits on the boards of TelePacific Communications and Nobel Learning Communities. Anand holds a BS in Electrical Engineering and Computer Science from MIT and an MBA with Distinction from the Harvard Business School.



Kurtis Heimerl

Kurtis Heimerl is a software engineer at Facebook. Previously, he was a postdoctoral researcher at University of California, Berkeley, where he also earned his Master's and Ph.D. He previously obtained his B.S. in Computer Engineering from the University of Washington. He was recognized by MIT Technology Review for his work on The Village Base Station (VBTS), a low-cost, low-power system for providing small-scale, locally-owned cellular networks. In 2013, Kurtis co-founded a startup company, Endaga, to commercialize the technology and bring VBTS to more communities around the world.



Karim Khoja

is the Chief Executive Officer of Roshan, Afghanistan's largest telecommunication company. With over 25 years of experience in the industry, he has started and managed extremely successful GSM companies in Pakistan, Poland, Croatia, Tajikistan and Afghanistan. Under his leadership, Roshan has grown to be Afghanistan's market leader, with more than six and a half million customers. Over the past eleven years, Mr. Khoja has dedicated his time to the Aga Khan Fund for Economic Development (AKFED) and served on the Board of several international companies. By bringing competition and best practices to the telecommunication industry in Afghanistan, Tajikistan, and beyond, his focus goes beyond financial results to how technology can be used to change lives.

Moderator



Kausik Rajgopal

is the leader of McKinsey's Silicon Valley office and also leads McKinsey's Payments Practice on the West Coast. He is the global head of the Digital Payments Practice, which includes mobile, online, and prepaid payments. Since joining McKinsey, Kausik

has worked primarily in the financial services and payments industries, helping banks, merchants, payments processors, and software and technology providers address strategy, operations, and organization issues. He is also an active leader in the firm's Public Sector Practice with a focus on improving operations and successfully managing transformational change.

Panelists



Shivani Siroya

is the CEO of InVenture Capital. Prior to InVenture she worked health costing at UNFPA and Mergers & Acquisitions at Health Net and Citigroup. Additionally,

Shivani is a 2013 TED Fellow. She is also a blogger for the Huffington Post, and on the board the LA Chapter of Young Women Social Entrepreneurs. Shivani holds a M.P.H from Columbia and a B.A. from Wesleyan University.



Ethan Bloch

is the founder and CEO of Digit, the popular automated savings tool that simplifies saving money with a 'set it and forget it' approach. He is a serial

entrepreneur with more than a decade of experience in finance, which includes co-founding a company that was acquired by Intuit.



Brian Warshawsky

is the COO and co-founder of Fenix International, a company with a mission to improve the quality of life for off-grid customers through innovation in

renewable energy and financial services. He was an early member of the Apple iPod operations team, and was the operations lead for the development and introduction of the iPod mini. Brian earned a BS from Brown University and a MS in Materials Engineering from MIT.



Qiuyan Xu

has been Chief Data Scientist at Cignifi Inc. since joining in January 2015. Dr. Xu has expertise in data analysis, statistical modeling, machine learning, model

implementation, and operation optimization. She served as Director of Advanced Analytics at Liberty Mutual. She focused on providing performance insights for new business acquisition in Personal Insurance. She has a PhD in statistics.

Organizers



Carson Christiano

is the Director of Partnerships and Innovation at CEGA, where she leads major research initiatives in financial inclusion, energy, and technology innovation. Prior to joining CEGA, Carson worked with Innovations for Poverty Action in Kenya where she coordinated a large-scale evaluation of water, sanitation and hygiene interventions. She holds a Masters in Public Policy from UC Berkeley and a BA in Political Science and International Studies from Northwestern University.



Lauren Russell

is CEGA's Operations Manager. She leads the Center's organizational development, performance management, and administration. Prior to joining CEGA, Lauren managed a \$20M countywide public health initiative out of UCLA. Previously, she was a Peace Corps Volunteer in El Salvador where she designed economic development and maternal-child health interventions. Lauren has an MPA in International Management from the Middlebury Institute of International Studies at Monterey and a BA in Anthropology from UC Santa Cruz.



Barbara Phillips

is the Administrative Business Partner of the Economics team at Google. Prior to joining Hal Varian's team, Barbara was part of Google's Global Mobility Team specializing in Relocation. She worked closely with People Ops, Mergers & Acquisitions and Benefits teams. Barbara also supports various internal groups including Hispanic Opportunities in Leadership & Advocacy, where she helps build and develop mentoring and networking, advocates for local communities, and empowers Latino businesses and entrepreneurs to make most of the web.



Jeanette Aguilar

is the administrative associate at CEGA and is responsible for supporting the Center's operations. Jeanette has extensive administrative experience at several Bay Area nonprofits, including Californians for Justice, Eviction Defense Center, and the YWCA of San Francisco and Marin.



Dustin Marshall

is the Financial Inclusion and Energy intern with CEGA. He is currently graduating from UC Berkeley with a B.A. in Political Economy, focusing on Sustainable Development. He is interested in research and social entrepreneurship in the area of energy access and int'l development and plans to pursue fieldwork before going to graduate school.

Notes

Notes

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