MIT Industrial Liaison Program Faculty Knowledgebase Report

2019 MIT Europe Conference in Vienna

March 27, 2019 - March 28, 2019

Day One

8:00am	Registration

9:00am

Welcome and Introduction
Harald Mahrer
President, Austrian Federal Economic Chamber

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President
Austrian Federal Economic Chamber

Harald Mahrer (born 1973) is President of the Austrian Federal Economic Chamber and was appointed President of the Austrian National Bank (Oesterreichische Nationalbank) in September 2018. He was Austrian Federal Minister for Education, Science and Business until December 2017. Prior to that, he was State Secretary in the same department from September 1st 2014. As graduate of the Vienna University of Economics and Business, he gained political experience as chairperson of the Austrian National Union of Students and subsequently completed a Doctorate in Social and Economic Science. After several years as a research assistant focussing on information systems and digital businesses he founded Austria's first incubator and his first company, legend consulting. He then took over as managing partner of Austria's leading PR & strategic communications agency, Pleon Publico. For more than 15 years, he has been an active business angel and promoted startups in different industries. From 2011 to 2015, he was also President of the Julius Raab Foundation – one of Austria's leading think tanks. He founded the Austrian Association of Philanthropic Foundations, worked intensively in the area of disruptive innovation, corporate social responsibility, social entrepreneurship, and individual freedom and establishing new strategic priorities for the development of Austria and Europe.

Margarete Schramböck
Minister, Federal Minister Digital and Economic Affairs
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Minister, Federal Minister Digital and Economic Affairs

Curriculum Vitae
Margarete Schramböck, born 1970 in Tyrol, Austria

Studied Business Administration at the University of Economics and Business in Vienna (WU), where she obtained her Doctorate in Social and Economic Sciences in 1997

Professional Career
Management functions at Alcatel, Service Director Austria

2002 CEO of NextiraOne, an IT communications company based in Paris

December 2008 to December 2011, Managing Director of NextiraOne Germany

2014 CEO of Dimension Data Austria, globally leading provider of network and communications technologies and IT services, in particular in the fields of network and computer centres, cloud services, IT security, voice and video communications as well as application integration

2016 to 2017 CEO of A1 Telekom Austria

Margarete Schramböck remains deeply attached to her Alma Mater and is a member of the WU's Center of Excellence. In 2017 she was elected both Tyrolean of the Year and University of Economics and Business in Vienna WU Manager of 2017

On 18 December 2017 Margarete Schramböck was appointed Federal Minister of Science, Research and Economy

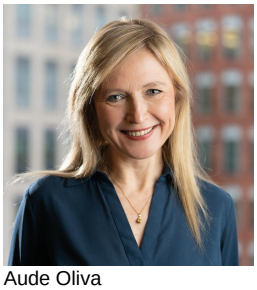
On 8 January 2018 Margarete Schramböck was appointed Federal Minister for Digital and Economic Affairs

Karl Koster
Executive Director, MIT Corporate Relations
Director, Alliance Management
MIT Office of Strategic Alliances & Technology Transfer

9:30am

MIT Quest for Intelligence
Aude Oliva

Director of Strategic Industry Engagement, MIT Schwarzman College of Computing
MIT Director, MIT-IBM Watson AI Lab
Co-lead, MIT AI Hardware Program
Senior Research Scientist, CSAIL



Aude Oliva

Director of Strategic Industry Engagement, MIT Schwarzman College of Computing
MIT Director, MIT-IBM Watson AI Lab
Co-lead, MIT AI Hardware Program
Senior Research Scientist, CSAIL

Aude Oliva, PhD is the MIT director in the MIT-IBM Watson AI Lab and director of strategic industry engagement in the MIT Schwarzman College of Computing, leading collaborations with industry to translate natural and artificial intelligence research into tools for the wider world. She is also a senior research scientist at the MIT Computer Science and Artificial Intelligence Laboratory (CSAIL), where she heads the Computational Perception and Cognition group.

Oliva has received an NSF Career Award in computational neuroscience, a Guggenheim fellowship in computer science and a Vannevar Bush Faculty Fellowship in cognitive neuroscience. She has served as an expert to the NSF Directorate of Computer and Information Science and Engineering on the topic of human and artificial intelligence. She is currently a member of the scientific advisory board for the Allen Institute for Artificial Intelligence. Her research is cross-disciplinary, spanning human perception and cognition, computer vision and cognitive neuroscience, and focuses on research questions at the intersection of all three domains. She earned a MS and PhD in cognitive science from the Institut National Polytechnique de Grenoble, France.

Imagine if the next breakthrough in artificial intelligence came from the root of intelligence itself: the human brain. At a time of rapid advances in intelligence research across many disciplines, the Intelligence Quest will encourage researchers to investigate the societal implications of their work as they pursue hard problems lying beyond the current horizon of what is known. Some of these advances may be foundational in nature, involving new insight into human intelligence, and new methods to allow machines to learn effectively. Others may be practical tools for use in a wide array of research endeavors, such as disease diagnosis, drug discovery, materials and manufacturing design, automated systems, synthetic biology, and finance. Today we set out to answer two big questions: How does human intelligence work in engineering terms? And how can we use that deep grasp of human intelligence to build wiser and more useful machines, to the benefit of society?

10:15am

What's the European Pathway to Govern AI?
Charlotte Stix
Research Associate/Policy Officer, Leverhulme Centre for the Future of Intelligence
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Research Associate/Policy Officer
Leverhulme Centre for the Future of Intelligence

Charlotte Stix is a Research Associate on the AI Policy and Responsible Innovation project. She was formerly at the European Commission's Robotics and Artificial Intelligence Unit, where she oversaw a total of €18 million in projects and contributed to the formulation of EU-wide AI strategy as its youngest ever team member. Previously, she was a Policy Officer at the World Future Council, and before that founded an award winning culture magazine while managing a team of 15 freelancers. She holds a MSc in Philosophy with a focus on cognitive sciences and philosophy of mind, as well as additional degrees in philosophy, fashion design, and the performing arts.

11:00am Networking Break

11:30am Creating the Next Generation Enterprise
Stephanie Woerner

Research Scientist
Center for Information Systems Research (CISR)
MIT Sloan School of Management

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Stephanie Woerner is a Research Scientist at the Center for Information Systems Research (CISR) at the MIT Sloan School of Management. Stephanie is an expert on how companies use technology and data to create more effective business models and her research centers on how companies manage organizational change caused by the digitization of the economy. In 2016, she was a subject matter expert on enterprise digitization for the Wall Street Journal CEO Council Conference. She has a passion for measuring hard-to-assess digital factors such as connectivity and customer experience, and linking them to firm performance. Recent articles (with Peter Weill) include "Thriving in an Increasingly Digital Ecosystem," and “Is Your Company Ready for a Digital Future?”, in *Sloan Management Review*. Stephanie is the coauthor, with Peter, of *What’s Your Digital Business Model? Six questions to help you build the next generation enterprise*, (Harvard Business Review Press, 2018).

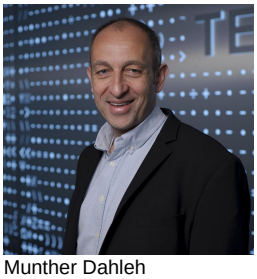
View full bio

How will your company compete in the digital economy? Based on her book *What’s Your Digital Business Model?* (Harvard Business School Press, 2018), co-authored with Peter Weill and cited by *Forbes* as one of the top ten business books in 2018, Stephanie L. Woerner presents six questions for business leaders to answer in order to navigate their digital transformation journeys. Stephanie will describe the future business model framework, based on two dimensions of major change enabled by digitization — getting closer to end consumers and moving from value chains to ecosystems—and show the financial performance of firms pursuing each model with examples drawn from a variety of industries. She will discuss what it takes to succeed in each model and the key capabilities each company must build.

12:15pm

How Do We Create a Market for Data?
Munther Dahleh

Director, IDSS
William A. Coolidge Professor, Electrical Engineering and Computer Science
MIT Institute for Data, Systems, and Society



Munther Dahleh

Director, IDSS
William A. Coolidge Professor, Electrical Engineering and Computer Science
MIT Institute for Data, Systems, and Society

Munther Dahleh was appointed director of the Institute for Data, Systems, and Society, effective July 1, 2015. (See MIT News article with full details.) He was previously the associate department head of EECS. He is also a member MIT's Laboratory for Information and Decision Systems (LIDS).

Prof. Dahleh joined LIDS as an assistant professor of EECS in 1987 and became a full professor in 1998. He spent the spring of 1993 as a visiting professor in the Department of Electrical Engineering, California Institute of Technology, and has held consulting positions with several companies in the U.S. and abroad.

Prof. Dahleh is internationally known for his fundamental contributions to robust control theory, computational methods for controller design, the interplay between information and control, the fundamental limits of learning and decision in networked systems, and the detection and mitigation of systemic risk in interconnected and networked systems.

View full bio

Data is recognized as a business asset, but we lack efficient ways to price it, says MIT professor Munther Dahleh. He proposes a marketplace that bases the cost of data on the financial value it generates. Data is an important asset across many domains, including business, but Dahleh, who is also the William A. Coolidge Professor for Electrical Engineering and Computer Science at MIT, argues that we're lacking sound ways to verify data's value. He says the technology for a better data marketplace is already under development. The IDSS is creating such a marketplace in the context of several applications, including online advertisement and a data sharing platform for subsaharan farmers. Dahleh will discuss why current data marketplaces do not address critical issues of data as a commodity, how a more efficient one would work in matching data to users and discovering data prices, why businesses may overestimate the value of their big-data caches, and how the financial value of specific business insights will determine what a collection of data is really worth.

1:00pm

Lunch

2:30pm

Startup Showcase
Hyunjun Park
Cofounder & CEO, CATALOG

Hyunjun Park
Cofounder & CEO
CATALOG

Hyunjun Park is passionate about using biology to address complex challenges. As cofounder and CEO of CATALOG, he is leading the effort to handle the explosion of digital information, using cutting edge tools of synthetic biology. Park obtained his BS at Seoul National University, PhD in microbiology at the University of Wisconsin Madison, and conducted postdoctoral research in synthetic biology at MIT.

Daisy Zhou
Cofounding Partner, Interpretable AI
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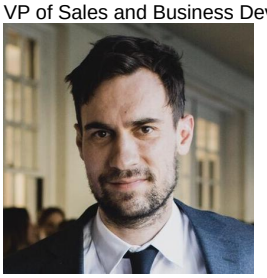
Cofounding Partner
Interpretable AI

Daisy Zhuo is a cofounding partner of Interpretable AI. She has extensive experience developing business solutions using advanced predictive and prescriptive analytics and AI systems in a variety of industries, including healthcare, banking, insurance, and information technology. She holds a PhD in operations research from MIT, during which she developed a range of cutting-edge machine learning techniques such as Optimal Imputation and Robust Classifications, with publications in top academic journals.

Sid Henderson
VP of Sales and Business Development, Osaro



Sid Henderson
VP of Sales and Business Development
Osaro

Sid Henderson is responsible for sales at Osaro, a San Francisco based company that makes AI-enabled vision and control software solutions for industrial robots. Osaro partners with top global system integrators and robot manufacturers to help introduce automation for tasks where automation was previously not possible, specifically in distribution centers for picking and placing tasks. Before joining Osaro, Sid worked at Deutsche Bank for 10 years where he was Head of Counterparty Risk for the Americas. He graduated from MIT in 2013 with degrees in Economics and Management.

CATALOG
The world will generate 160 zettabytes of data in 2025. That's more bytes than there are stars in the observable universe. Conventional storage media like flash-drives and hard-drives do not have the longevity, data density, or cost efficiency to meet the global demand. CATALOG is building the world's first DNA-based platform for massive digital data storage.

Interpretable AI
The company is bringing interpretability to machine learning and artificial intelligence and was co-founded by Professor Dimitris Bertsimas of MIT Sloan School of Management's Operations Research Center (ORC).

Osaro
Advanced imaging AI for robotics that can identify objects others cannot.

3:15pm

The End of Trust
Ethan Zuckerman

Associate Professor of the Practice in Media Arts and Sciences
Director, Center for Civic Media
MIT Media Lab

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Associate Professor of the Practice in Media Arts and Sciences
Director, Center for Civic Media
MIT Media Lab

Ethan Zuckerman is director of the Center for Civic Media at MIT, and an Associate Professor of the Practice at the MIT Media Lab. His research focuses on the use of media as a tool for social change, the role of technology in international development, and the use of new media technologies by activists. He is the author of Rewire: Digital Cosmopolitans in the Age of Connection (W. W. Norton, 2013).

With Rebecca MacKinnon, Zuckerman co-founded the international blogging community Global Voices. It showcases news and opinions from citizen media in more than 150 nations and 30 languages, publishing editions in 20 languages. Through Global Voices and through the Berkman Center for Internet and Society at Harvard University, where he served as a researcher and fellow for eight years, Zuckerman is active in efforts to promote freedom of expression and fight censorship in online spaces.

In 2000, Zuckerman founded Geekcorps, a technology volunteer organization that sends IT specialists to work on projects in developing nations, with a focus on West Africa. Previously, he helped found Tripod.com, one of the web's first "personal publishing" sites. Zuckerman blogs at ethanzuckerman.com/blog. He received his bachelor's degree from Williams College, and as a Fulbright scholar, studied at the University of Ghana at Legon.

View full bio

Mistrust in social and political institutions is at an all-time high, in the US and many advanced democracies. That mistrust is both changing how people make political change and participate in social movements, and changing our relationships with new technologies. As technology becomes a space for activism with movements like “Tech Won't Build It”, and debates about the social impact of technologies underlies our political conversations, how do we build a future responsibly?

4:00pm

Networking Break

4:30pm

Improving Supervised Learning with Unsupervised Deep Learning
Eric Steinberger
Computer Science Student at University of Cambridge
AI Research & Engineering Consultant

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Computer Science Student at University of Cambridge
AI Research & Engineering Consultant

Eric Steinberger is a Computer Science student at University of Cambridge. Next to his studies, he is currently conducting research - mainly independently - on multi-agent deep reinforcement learning. Over the past few years Eric worked at TU Vienna as a Research Intern, at the University of Luxembourg as a Research Assistant and offered consulting to Austrian Start-Ups on conceptual planning and development of AI applications, the integration into existing systems, as well as teaching managers and engineers how machine learning works. Additionally, he was a speaker at TEDx, WeAreDevelopers 2018, the 6th IOT Forum, Digital Austria 2018 and The Cybersecurity Forum.

5:15pm

The Truth Machine: The Blockchain and the Future of Everything
Michael Casey

Senior Advisor for Blockchain Opportunities, Digital Currency Initiative (DCI)
MIT Media Laboratory

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MIT Media Laboratory

Michael Casey is a senior advisor at the MIT Media Lab's Digital Currency Initiative and a senior lecturer at MIT Sloan School of Management. He and his colleagues are seeking to build awareness around digital currencies and their underlying blockchain technology, helping shape scholarship around the topic and exploring dedicated research projects that use this emerging technology to achieve social impact goals.

Before joining MIT, Michael was a senior columnist covering global finance at The Wall Street Journal, where he culminated a two-decade career in print journalism that spanned various roles and stints on five continents. He also hosted online TV shows for WSJ Live and frequently appeared on various networks as a commentator, including CNBC, CNN, Fox Business, and the BBC. He recently revived his involvement with media, taking on a role as Chairman of the Advisory Board at blockchain news outlet CoinDesk and this year founded his own media company, Streambed Media, which focuses on themes of innovation and society.

Michael is the author of five books on the digital economy and Internet culture. In 2015, he and co-author Paul Vigna published the critically acclaimed *The Age of Cryptocurrency: How Bitcoin and Digital Money are Challenging the Global Economic Order* and three years later published its sequel, *The Truth Machine: The Blockchain and the Future of Everything*. He has also collaborated with documentary filmmakers on the same topic and is frequently called on to speak about these issues at conferences and other public events.

Michael has written three other books: *The Social Organism: A Radical Understanding of Social Media to Transform Your Business and Life*, which he co-wrote with social media entrepreneur Oliver Luckett, *The Unfair Trade: How our Broken Global Financial System Destroys the Middle Class*, an analysis of the global dimensions of the 2008 financial crisis, and *Che's Afterlife: The Legacy of an Image*, about the famous photo of Ernesto "Che" Guevara by Alberto Korda.

A native of Perth, Australia, Michael is a graduate of the University of Western in Australia and has higher degrees from Cornell University and Curtin University.

As once-trusted institutions are ever more brazenly compromised, Casey lays out a case for blockchain, citing its potential to restore control over data, assets, and personal identities; disrupt industries from finance and tech to legal and shipping; and grant billions of people access to the global economy.

6:30pm

Networking Reception and Dinner

Palais Niederösterreich (Herrengasse 13, A-1010 Vienna, Austria)

Shuttle service for all participants/speakers/team from the AFEC to the dinner location.

Day Two

8:30am

Registration

9:00am

Opening Remarks
Karl Koster
Executive Director, MIT Corporate Relations
Director, Alliance Management
MIT Office of Strategic Alliances & Technology Transfer

Karl Koster
Executive Director, MIT Corporate Relations
Director, Alliance Management
MIT Office of Strategic Alliances & Technology Transfer

Karl Koster is the Executive Director of MIT Corporate Relations. MIT Corporate Relations includes the MIT Industrial Liaison Program and MIT Startup Exchange.

In that capacity, Koster and his staff work with the leadership of MIT and senior corporate executives to design and implement strategies for fostering corporate partnerships with the Institute. Koster and his team have also worked to identify and design a number of major international programs for MIT, which have been characterized by the establishment of strong, programmatic linkages among universities, industry, and governments. Most recently these efforts have been extended to engage the surrounding innovation ecosystem, including its vibrant startup and small company community, into MIT's global corporate and university networks.

Koster is also the Director of Alliance Management in the Office of Strategic Alliances and Technology Transfer (OSATT). OSATT was launched in Fall 2019 as part of a plan to reinvent MIT’s research administration infrastructure. OSATT develops agreements that facilitate MIT projects, programs and consortia with industrial, nonprofit, and international sponsors, partners and collaborators.

He is past chairman of the University-Industry Demonstration Partnership (UIDP), an organization that seeks to enhance the value of collaborative partnerships between universities and corporations.

He graduated from Brown University with a BA in geology and economics, and received an MS from MIT Sloan School of Management. Prior to returning to MIT, Koster worked as a management consultant in Europe, Latin America, and the United States on projects for private and public sector organizations.

Michael Otter
Austrian Federal Economic Chamber
Director General, ADVANTAGE AUSTRIA

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Austrian Federal Economic Chamber
Director General
ADVANTAGE AUSTRIA

Since September 2017 Michael Otter is Director General of ADVANTAGE AUSTRIA, Austria’s official trade promotion organization at the Austrian Federal Economic Chamber. ADVANTAGE AUSTRIA, with its more than 100 offices in over 70 countries, provides a broad range of intelligence and business development services for both Austrian companies and their international business partners. The service centers are attached to Austria’s diplomatic and consular missions but are independently operated and financed.

Prior to his appointment in 2017, Michael Otter was Austrian Trade Commissioner to Japan and the Republic of Korea and Deputy Trade Commissioner in the USA, Japan and VAE. From September 2016 to September 2017 Mr. Otter served as Deputy Director General and Chief Strategy Officer of ADVANTAGE AUSTRIA.

Mr. Otter is a graduate of the Vienna University of Economics and Business.

9:15am

Big and Streaming Data in the Smart Factory
Brian W Anthony

Principal Research Scientist, Department of Mechanical Engineering
Associate Director, MIT.nano
Director of Technical Operations, Center for Clinical and Translational Research

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Principal Research Scientist, Department of Mechanical Engineering
Associate Director, MIT.nano
Director of Technical Operations, Center for Clinical and Translational Research

Dr. Brian Anthony is a leading expert in the design of intelligent, or smart, instruments and methodologies for monitoring, measuring, and controlling complex physical systems. His interdisciplinary work spans mechanical, electrical, and optical engineering, seamlessly integrated with computer science and optimization, to deliver innovative solutions across manufacturing, healthcare, and other industries.

At the core of Dr. Anthony's research is computational instrumentation—the development of advanced tools and techniques to observe and manage intricate systems, particularly in manufacturing and medical diagnostics. His contributions include pioneering measurement and imaging technologies that enhance precision and performance in both industrial and clinical settings.

With over 30 years of experience, Dr. Anthony combines deep academic insight with practical industry expertise in technology innovation, product development, and entrepreneurship. He has successfully guided market-driven solutions from concept to commercialization, especially at the intersection of information technology and advanced manufacturing. His achievements include receiving an Emmy Award from the Academy of Television Arts and Sciences for technical innovation in broadcast engineering.

In the classroom, Dr. Anthony is dedicated to teaching the modeling and analysis of large-scale systems to support decision-making in domains such as manufacturing, medicine, and entertainment. He also leads efforts in developing optimization algorithms and software tools for system design and evaluation.

Dr. Anthony's dual roles in academia and industry position him as a bridge between cutting-edge research and real-world application, driving impactful technologies that shape the future of engineering and innovation.

View full bio
View on LinkedIn

Camera-based instruments can be used to acquire data which contain information about the time varying appearance, structure, or motion of manufacturing machines, processes, and produced products.

Video can be used as the input data for the real-time monitoring of machines, products, or processes to which sensors cannot be affixed. Industrial and scientific monitoring applications, compared to other video sources, such as those from surveillance, broadcast, mobile robotics, social media, or entertainment, can often be engineered and structured. Yet, applications of video-based instrumentation in industrial, manufacturing, and scientific experimentation environments are not extensively addressed by the computer vision community.

We discuss the needs, challenges, and recent success in deploying real-time, data-science enabled techniques to efficiently reduce the complexity and dimensionality of raw video data to extract actionable information for real-time feedback and process control, defect detection, and wear and degradation related for factories and the factory subsystem.

10:00am

Designing Memristor Materials and Functions for Neuromorphic Computing and Memories
Jennifer Rupp

Thomas Lord Assistant Professor of Materials Science and Engineering
MIT Department of Materials Science and Engineering

Jennifer Rupp

Thomas Lord Assistant Professor of Materials Science and Engineering
MIT Department of Materials Science and Engineering

Jennifer Rupp is the Thomas Lord Assistant Professor of Electrochemical Materials in the Department of Materials Science and Engineering at MIT. Before she came to MIT, Prof. Rupp was a non-tenure-track assistant professor at ETH Zurich Switzerland where she held two prestigious, externally-funded career grants: an ERC Starting Grant (SNSF) and a Swiss National Science Foundation (SNF) professorship from 2012 on.

She previously was a visiting and senior scientist at MIT (2011-2012) and at the National Institute of Materials Science (NIMS) in Tsukuba Japan (2011), and worked as a postdoc at ETH Zurich (2006-2010). Professor Rupp team's current research interests are on solid-state material design and tuning of structure-property relations for novel energy and information devices and operation schemes. This ranges from alternative energy storage via batteries or catalytic convertor systems processed by smart material design for solar light and CO2 to renewable synthetic fuels, or novel types of neuromorphic memories and computing logic entities for data storage and transfer beyond transistors. Her team at MIT works on material design, creating novel processing techniques, and making ceramics, cermets, and glass-type ceramic structures. Her team also works on device prototypes, specifically their operation and characteristics.

She has published more than 70 papers, holds 4 patents, and enjoys actively discussing material tech trends on the theme of energy with the public, economists and policy makers. She is a frequent speaker and member of the World Economic Forum (2015-2017), and contirbutes to CNN and other television programs.

Professor Rupp and her team received several honors and awards such as the keynote lecture at the Nature Energy Conference 2016, "Top 40 international scientist under the age of 40" by World Economic Forum in 2015, Spark Award for the most innovative and economically important invention of the year at ETH Zurich, and Gordon Research lecture in 2014, the Kepler award for “new materials in energy technology” by the European Academy of Science in 2012, and the Young Scientist Award by the Solid State Ionic Society.

Memristors are nano-devices that remember information permanently, switch in nanoseconds, are super dense, and power efficient. That makes memresistors potential replacements for good old transistors operated in DRAM, flash, and disk. What material architectures are used for memristor designs? How can we engineer their floor print and energy consumption? What if you can put huge amounts of storage near the processor and have enough bandwidth to exchange huge amounts of data? All at low power? Memristors are not just stuck in the past, they don't just remember, they can perform logic. And, the properties of the memristor apparently mimic neurons and can learn without supervision. The characteristics of memristors are such that you have to rethink the *whole compute and storage paradigm.*

10:45am

Networking Break

11:15am

Fake News: The End of Reality
Sinan Aral

David Austin Professor of Management
MIT Sloan School of Management

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David Austin Professor of Management
MIT Sloan School of Management

Sinan Aral is the David Austin Professor of Management at MIT, where he is a Professor of IT & Marketing, and Professor in the Institute for Data, Systems and Society where he co-leads MIT's Initiative on the Digital Economy.

He was the chief scientist at SocialAmp, one of the first social commerce analytics companies (until its sale to Merkle in 2012), and at Humin, a social platform that the Wall Street Journal called the first "Social Operating System" (until its sale to Tinder in 2016). He is currently a founding partner at Manifest Capital and on the Advisory Board of the Alan Turing Institute, the British National Institute for Data Science, in London. Sinan was the scholar-in-residence at the New York Times R&D Lab in 2013, and has worked closely with Facebook, Twitter, Snap, AirBnB, Yahoo, Jet.com, Microsoft, IBM, Intel, Cisco, Oracle, SAP, and many other leading Fortune 500 firms on realizing business value from big data analytics, social media, and IT investments.

Sinan's research has won numerous awards including the Microsoft Faculty Fellowship, the PopTech Science Fellowship, an NSF CAREER Award, and a Fulbright Scholarship. In 2014, he was named one of the "World's Top 40 Business School Professors Under 40" by Businessweek.

Sinan is a Phi Beta Kappa graduate of Northwestern University, holds Master's degrees from the London School of Economics and Harvard University, and received his PhD from MIT.

He enjoys cooking, skiing, and telling jokes about his own cooking and skiing. His most recent hobby is learning from his four-year-old son. You can find Sinan on Twitter @sinanaral.

View full bio

False news is big news. Barely a day goes by without a new development about the veracity of social media, foreign meddling in U.S. elections, or questionable science. Conducted with Soroush Vosoughi and Deb Roy of the MIT Media Lab, "The Spread of True and False News Online" investigates the differential diffusion of all the verified, true and false news stories distributed on Twitter from 2006 to 2017. The data comprise approximately 126,000 stories tweeted by about 3 million people over 4.5 million times. Until this study, few large-scale empirical investigations of the diffusion of false news or its social origins had existed. Their conclusions are both surprising and alarming.

Noon

Panel Discussion: Trust but Verify
Margaret Childs
CEO, Home Town Media
Publisher, METROPOLE - Vienna in English

Margaret Childs
CEO, Home Town Media
Publisher
METROPOLE - Vienna in English

Maggie Childs has worked as a journalist, editor and Producer for TV, print and online media, for employers including Condé Nast Traveller and the Associated Press, as well as writing about business and startup-related topics for the Austrian daily Die Presse. In the fall of 2015, she founded the cross-media publishing company Home Town Media and launched its central product, Austria's leading English-language magazine Metropole. As the only English-language publisher in the region, Home Town Media creates digital content and print products for companies in the DACH countries, who want to reach an international audience. Since the summer of 2017, she has been on the board of the non-profit organization and think tank, AustrianStartups.

Sinan Aral

David Austin Professor of Management
MIT Sloan School of Management

Sinan Aral

David Austin Professor of Management
MIT Sloan School of Management

Sinan Aral is the David Austin Professor of Management at MIT, where he is a Professor of IT & Marketing, and Professor in the Institute for Data, Systems and Society where he co-leads MIT's Initiative on the Digital Economy.

He was the chief scientist at SocialAmp, one of the first social commerce analytics companies (until its sale to Merkle in 2012), and at Humin, a social platform that the Wall Street Journal called the first "Social Operating System" (until its sale to Tinder in 2016). He is currently a founding partner at Manifest Capital and on the Advisory Board of the Alan Turing Institute, the British National Institute for Data Science, in London. Sinan was the scholar-in-residence at the New York Times R&D Lab in 2013, and has worked closely with Facebook, Twitter, Snap, AirBnB, Yahoo, Jet.com, Microsoft, IBM, Intel, Cisco, Oracle, SAP, and many other leading Fortune 500 firms on realizing business value from big data analytics, social media, and IT investments.

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View full bio
Frank Schweitzer
Full Professor for Systems Design, ETH Zurich

Frank Schweitzer
Full Professor for Systems Design
ETH Zurich

Frank Schweitzer has been Full Professor for Systems Design at ETH Zurich since 2004. He is also associated member of the Department of Physics at the ETH Zurich.

Frank Schweitzer received his first Ph.D. (Dr. rer. nat.) in theoretical physics at the age of 26, and his second Ph.D. (Dr. phil.) in philosophy of science at the age of 29, he further earned a habilitation/Venia Legendi in Physics. In his professional career, he worked for different research institutions (Max-Planck Institute for the Physics of Complex Systems, Dresden, Fraunhofer Institute for Autonomous Intelligent Systems, Sankt Augustin) and universities (Humboldt University Berlin, Cornell University Ithaca NY, Emory University, Atlanta GA).

12:45pm

Wrap Up & Adjournment
Michael Friedl
Austrian Trade Commissioner for the US, ADVANTAGE AUSTRIA
Michael Friedl
Austrian Trade Commissioner for the US
ADVANTAGE AUSTRIA

Michael Friedl has been the Austrian Trade Commissioner for the US since September 2014. In this function he heads the office of ADVANTAGE AUSTRIA for the US, which is based in New York. Prior to this posting, he was Deputy Trade Commissioner in Johannesburg and Abu Dhabi. Later he headed the offices in Washington DC and Tehran before being in charge of HR and personnel development at the ADVANTAGE AUSTRIA head office in Vienna. Michael holds an MBA from the Vienna University of Economics and a Master degree in International Public Policy from Johns Hopkins, SAIS in Washington DC. In his spare time Michael loves to cook, run and read books on architecture.

ADVANTAGE AUSTRIA is Austria's official trade promotion authority. Outside of Austria, it operates with more than 110 offices in over 70 countries. ADVANTAGE AUSTRIA provides a broad range of intelligence and business development services for Austrian companies and their international business partners. Its goal is to generate more international business opportunities by promoting the products and services of Austrian businesses around the world, by helping companies and organizations outside of Austria to build strong relationships with Austrian companies and by promoting Austria as a place to invest in. The offices of ADVANTAGE AUSTRIA in the U.S. (New York, Chicago, Los Angeles, Washington D.C. and Atlanta) support Austrian companies in doing business in the U.S. For U.S. partners, ADVANTAGE AUSTRIA provides the local link to Austrian companies, products and services and Austria as an investment location in the heart of Europe. As official trade representations, ADVANTAGE AUSTRIA offices provide a reliable source of information and help to reduce time, cost and risk of doing business with Austrian companies (see www.advantageaustria.org/us).

1:30pm

Roundtable Discussions
Brian W Anthony

Principal Research Scientist, Department of Mechanical Engineering
Associate Director, MIT.nano
Director of Technical Operations, Center for Clinical and Translational Research

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Dr. Brian Anthony is a leading expert in the design of intelligent, or smart, instruments and methodologies for monitoring, measuring, and controlling complex physical systems. His interdisciplinary work spans mechanical, electrical, and optical engineering, seamlessly integrated with computer science and optimization, to deliver innovative solutions across manufacturing, healthcare, and other industries.

At the core of Dr. Anthony's research is computational instrumentation—the development of advanced tools and techniques to observe and manage intricate systems, particularly in manufacturing and medical diagnostics. His contributions include pioneering measurement and imaging technologies that enhance precision and performance in both industrial and clinical settings.

With over 30 years of experience, Dr. Anthony combines deep academic insight with practical industry expertise in technology innovation, product development, and entrepreneurship. He has successfully guided market-driven solutions from concept to commercialization, especially at the intersection of information technology and advanced manufacturing. His achievements include receiving an Emmy Award from the Academy of Television Arts and Sciences for technical innovation in broadcast engineering.

In the classroom, Dr. Anthony is dedicated to teaching the modeling and analysis of large-scale systems to support decision-making in domains such as manufacturing, medicine, and entertainment. He also leads efforts in developing optimization algorithms and software tools for system design and evaluation.

Dr. Anthony's dual roles in academia and industry position him as a bridge between cutting-edge research and real-world application, driving impactful technologies that shape the future of engineering and innovation.

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Sinan Aral

David Austin Professor of Management
MIT Sloan School of Management

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Sinan Aral is the David Austin Professor of Management at MIT, where he is a Professor of IT & Marketing, and Professor in the Institute for Data, Systems and Society where he co-leads MIT's Initiative on the Digital Economy.

He was the chief scientist at SocialAmp, one of the first social commerce analytics companies (until its sale to Merkle in 2012), and at Humin, a social platform that the Wall Street Journal called the first "Social Operating System" (until its sale to Tinder in 2016). He is currently a founding partner at Manifest Capital and on the Advisory Board of the Alan Turing Institute, the British National Institute for Data Science, in London. Sinan was the scholar-in-residence at the New York Times R&D Lab in 2013, and has worked closely with Facebook, Twitter, Snap, AirBnB, Yahoo, Jet.com, Microsoft, IBM, Intel, Cisco, Oracle, SAP, and many other leading Fortune 500 firms on realizing business value from big data analytics, social media, and IT investments.

Sinan's research has won numerous awards including the Microsoft Faculty Fellowship, the PopTech Science Fellowship, an NSF CAREER Award, and a Fulbright Scholarship. In 2014, he was named one of the "World's Top 40 Business School Professors Under 40" by Businessweek.

Sinan is a Phi Beta Kappa graduate of Northwestern University, holds Masters degrees