MIT Industrial Liaison Program Faculty Knowledgebase Report

2019 MIT Innovations in Management Conference

March 6, 2019 - March 7, 2019

Day One

8:00am	Registration with Light Breakfast
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.

9:15am

Radical Innovation: How to Utilize the Inversion Factor
Sanjay Sarma
Vice President for Open Learning
Fred Fort Flowers (1941) and Daniel Fort Flowers (1941) Professor of Mechanical Engineering

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Vice President for Open Learning
Fred Fort Flowers (1941) and Daniel Fort Flowers (1941) Professor of Mechanical Engineering

Sanjay Sarma is the Fred Fort Flowers (1941) and Daniel Fort Flowers (1941) Professor of Mechanical Engineering at MIT. He is the first Dean of Digital Learning at MIT. He co-founded the Auto-ID Center at MIT and developed many of the key technologies behind the EPC suite of RFID standards now used worldwide. He was also the the founder and CTO of OATSystems, which was acquired by Checkpoint Systems (NYSE: CKP) in 2008. He serves on the boards of GS1, EPCglobal and several startup companies including Senaya and ESSESS.

Dr. Sarma received his Bachelors from the Indian Institute of Technology, his Masters from Carnegie Mellon University and his PhD from the University of California at Berkeley. Sarma also worked at Schlumberger Oilfield Services in Aberdeen, UK, and at the Lawrence Berkeley Laboratories in Berkeley, California. He has authored over 75 academic papers in computational geometry, sensing, RFID, automation and CAD, and is the recipient of numerous awards for teaching and research including the MacVicar Fellowship, the Business Week eBiz Award and Informationweek's Innovators and Influencers Award. He advises several national governments and global companies.

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Companies are struggling to keep up with game-changing approaches that are threatening their traditional businesses. The concept of products is under threat. Technologies such as IoT and business trends such as the sharing economy are creating a new design language for crafting solutions to customer needs. For example, Ford might think it is competing with Toyota, but it may actually be competing with Uber or an electric scooter company. Uber is essentially a new offering that leverages the sensors and connectivity of smart phones, the cloud, and gig economy and changing consumer patterns to supplant a product traditionally sold to individuals — the car. We call this Inversion. This talk will address how to think about this new world and compete in it.

10:00am

Going Green Is Not Black and White
Yossi Sheffi
Elisha Gray II Professor of Engineering Systems
Director, MIT Center for Transportation and Logistics

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Director
MIT Center for Transportation and Logistics

Yossi Sheffi is an expert in systems optimization, risk analysis and supply chain management. He is author of a text book and seven award-winning management books. His latest books are: “The New Abnormal: Reshaping Business and Supply Chain Strategy Beyond Covid-19,” (October 1, 2020) and “A Shot in the Arm: How Science, Technology and Supply Chains Converged to Vaccinate the World (October 2021).

Under his leadership, MIT CTL has launched many educational, research, and industry/government outreach programs, including the MIT SCALE network involving six academic centers round the world. In 2015, CTL has launched the on-line Micromaster’s program, enrolling over 480,000 students in 196 countries.

Outside the institute, Dr. Sheffi has consulted with numerous organizations. He has also founded or co-founded five successful companies, all acquired later by large enterprises.

Dr. Sheffi has been recognized in numerous ways in academic and industry forums and won dozens of awards.

He obtained his B.Sc from the Technion in Israel in 1975, and SM and Ph.D. from MIT in 1978.

For more information visit: http://sheffi.mit.edu/

View full bio

Professor Sheffi explains why companies are not, in general, making the deep investments in sustainability that are required in order to “move the needle” and why they should not do it. He addresses why consumers are not willing to pay more or sacrifice in the name of environmental sustainability, despite saying so in surveys, and why such behavior may be rational. He also explains how governments contribute to the problem. Professor Sheffi will end with some thoughts and insights about future directions. The presentation and discussion include many examples, and time will be allocated for Q&A and discussion with Professor Sheffi.

10:45am

Networking Break

11:00am

Professional Education
Bhaskar Pant

Executive Director
MIT Professional Education

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Executive Director
MIT Professional Education

Bhaskar Pant is the Executive Director of MIT Professional Education, the arm of MIT that provides technical professionals a gateway to MIT expertise via education courses and programs designed for them. More than 1,500 professionals from over sixty countries arrive on the MIT campus in Cambridge, Massachusetts, every summer to attend courses of a diverse set of technical disciplines. In addition, over 10,000 professionals worldwide are now attending MIT's online professional courses that include topics such as Big Data. MIT Professional Education is also offering select MIT courses in locations in Asia, Latin America, and Europe

Prior to joining MIT, Mr. Pant held several leadership positions such as serving as Managing Director, Asia Pacific, for the Educational Testing Service (ETS), the world's foremost academic testing organization headquartered in Princeton, N.J. As managing director, he was responsible for overseeing the company's English language testing operations throughout Asia. This included the opening of a subsidiary in China that administered the TOEIC English proficiency test for engineers and other working professionals in the nation.

Previously, Mr. Pant led the global corporate training arm of the World Learning Graduate Institute in Vermont and held senior management positions at media and media technology companies such as Sony Corporation and Turner Broadcasting/CNN. Mr. Pant was the first President of Turner Broadcasting's subsidiary in India.

Mr. Pant holds an undergraduate degree in electrical engineering from the University of Rochester and a graduate degree in communications and management from Indiana University in Bloomington. Besides managing MIT Professional Education, Mr. Pant teaches intercultural communication to engineering students at MIT and management students at the Harvard University Extension School.

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11:15am

Panel Discussion: Data, Not AI, is the Secret Sauce
Michael Schrage
Research Fellow, MIT Initiative on the Digital Economy, MIT Sloan School of Management

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Research Fellow, MIT Initiative on the Digital Economy
MIT Sloan School of Management

Michael Schrage is a research fellow with the MIT Sloan School of Management's Initiative on the Digital Economy. His research, writing, and advisory work focuses on the behavioral economics of models, prototypes, and metrics as strategic resources for managing innovation risk and opportunity. He is author of the award-winning book The Innovator's Hypothesis (*MIT Press*, 2014), Who Do You Want Your Customers to Become? (*Harvard Business Review Press*, 2012), and Serious Play (*Harvard Business Review Press*, 2000). His latest book, Recommendation Engines, was published in September 2020 by *MIT Press* as part of its Essential Knowledge series. He's done consulting and advisory work for Microsoft, Procter & Gamble, British Telecom, BP, Siemens, Embraer, Google, iRise, the Office of Net Assessment, and other organizations

Schrage has run design workshops and executive education programs on innovation, experimentation, and strategic measurement for organizations all over the world and is currently pioneering work in selvesware technologies designed to augment aspects, attributes, and talents of productive individuals. He is particularly interested in the future co-evolution of expertise, advice, and human agency as technologies become smarter than the people using them.

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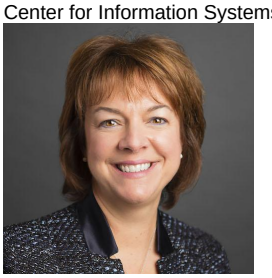
Roy Wilsker
Senior Director, IT, Medtronic
Barbara Wixom
Research Director & Principal Research Scientist,
Center for Information Systems Research



Barbara Wixom
Research Director & Principal Research Scientist,
Center for Information Systems Research

Barbara joined MIT Sloan in June 2013 to serve as a Principal Research Scientist at the MIT Sloan Center for Information Systems Research (CISR). MIT CISR was established in 1974 as a non-profit research group, and it currently is funded by 85 corporate sponsors and patrons. The center undertakes practical research on how firms generate business value from digitization. Barbara's work focuses on how organizations effectively deliver value from their information assets.

Prior to MIT CISR, Barbara was a tenured faculty member at the University of Virginia (UVA) where she taught undergraduate and graduate courses in data management, business analytics, and IT strategy. She is a two-time recipient of the UVA All-University Teaching Award (2002, 2010), which recognizes teaching excellence in professors, particularly those who inspire and motivate students. This honor is especially meaningful to Barbara because she earned her undergraduate degree at the University of Virginia.

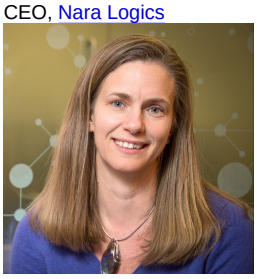
Since the mid–90's, Barbara has deeply explored data warehousing, business intelligence, analytics, big data, and AI. Her research ranges from large-scale surveys and meta-analyses to lab experiments and in-depth case studies. Five of her cases have placed in the Society for Information Management Paper Awards competition: First American Corporation (1999), Owens and Minor (2000), Continental Airlines (2004), Sprint (2008), and BBVA (2018). Barbara is a leading academic scholar, publishing in such journals as Information Systems Research; MIT Sloan Management Review; MIS Quarterly; and MIS Quarterly Executive. She presents her work globally to academic and business audiences.

Barbara serves as associate editor of the Business Intelligence Journal, research fellow of The Data Warehousing Institute, and fellow of the Teradata University Network. In 2017, Barbara was awarded the Teradata University Network Hugh J. Watson Award for her contributions to the data and analytics academic community via the Teradata University Network. She is the author of two leading systems analysis and design textbooks, published

12:15 MIT Startup Exchange: Introduction with Lightning Talks

Jennifer Lum
Cofounder & COO, Forge.AI

Jana Eggers
CEO, Nara Logics



Jana Eggers
CEO
Nara Logics

Jana Eggers is CEO of the neuroscience-inspired artificial intelligence platform company, Nara Logics. Eggers is an experienced tech exec focused on inspiring teams to build great products. Eggers has started and grown companies and led large organizations at public companies. She is active in customer-inspired innovation, the artificial intelligence industry, the Autonomy/Mastery/Purpose-style leadership, as well as running and triathlons. Eggers has held technology and executive positions at Intuit, Blackbaud, Los Alamos National Laboratory (computational chemistry and super computing), Basis Technology (internationalization technology), Lycos, American Airlines, Spreadshirt (ecomm), and multiple startups.

Tor Jakob Ramsøy
Founder & CEO, Arundo

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Arundo Founder and CEO Tor Jakob Ramsøy was previously a Senior Partner at McKinsey & Company, the global management consulting firm. At McKinsey, he led the technology service lines for the Global Energy Practice and EMEA Big Data/Advanced Analytics, and was also country manager for McKinsey Norway and led the Business Technology Office in Scandinavia. Prior to McKinsey, Ramsøy was a Senior Partner at Accenture. He holds an MS from MIT.

Arundo is a software company based in Oslo, Norway; Houston, TX; and Palo Alto, CA. Their products help business leaders and operations professionals in maritime and other heavy industries better manage complex physical systems through machine learning and data-driven software applications. Founded in 2015, Arundo has raised over $35 million in financing and currently consists of around 100 software engineers, data scientists, and industrial domain experts, including 23 PhDs. They are part of Stanford's StartX program and have received investment from the Stanford-StartX Fund. Arundo was also named to the MIT STEX25 by the Massachusetts Institute of Technology Startup Exchange.

Harrison Bralower
Cofounder & CEO, Abstract Manufacturing
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Abstract Manufacturing

Harrison Bralower is cofounder and CEO of Abstract Manufacturing (MassChallenge 2018), which helps legacy manufacturing operations discover the hidden factory with non-invasive sensor retrofits and computer vision. He has led development of complex hardware systems in all physical engineering fields, including astronomical camera systems in the MIT Space Systems Lab. Bralower served as entrepreneur-in-residence in 2018 at The Engine, the MIT-backed venture capital firm.

Mike Perozek
Vice President of Sales and Marketing, Smartvid.io
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Vice President of Sales and Marketing
Smartvid.io

Mike Perozek heads up Smartvid.io's sales, marketing, partner, and customer success programs. He is passionate about helping customers adopt new technology and achieve breakthrough financial and operational improvements. Prior to Smartvid.io, Perozek built and

12:55pm Lunch with Startup Exchange Exhibits

Exhibiting startups include:
Forge.ai | **Nara Logics** | **Arundo** | **Abstract** | **Smartvid.io** | **Profit Isle** | **Emtropy Labs** | **GeniusMesh** | **DeepBench** | **CompanionMX** | **iQ3Connect**

2:00pm The Strategic Future of KPIs and Accountability: Utilizing Machine Learning to Optimize Performance
Michael Schrage
Research Fellow, MIT Initiative on the Digital Economy, MIT Sloan School of Management

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Research Fellow, MIT Initiative on the Digital Economy
MIT Sloan School of Management

Michael Schrage is a research fellow with the MIT Sloan School of Management's Initiative on the Digital Economy. His research, writing, and advisory work focuses on the behavioral economics of models, prototypes, and metrics as strategic resources for managing innovation risk and opportunity. He is author of the award-winning book The Innovator's Hypothesis (*MIT Press*, 2014), Who Do You Want Your Customers to Become? (*Harvard Business Review Press*, 2012), and Serious Play (*Harvard Business Review Press*, 2000). His latest book, Recommendation Engines, was published in September 2020 by *MIT Press* as part of its Essential Knowledge series. He's done consulting and advisory work for Microsoft, Procter & Gamble, British Telecom, BP, Siemens, Embraer, Google, iRise, the Office of Net Assessment, and other organizations

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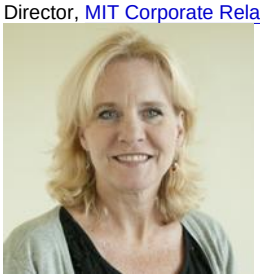
Ongoing performance improvement is essential to sustainable enterprise success. Serious organizations seek increasing returns on their financial, human, and intellectual capital. The concurrent rise of 'Big Data' and 'Machine Learning' fundamentally changes how leaderships can measure and manage customer value creation.

So how do you want to hold yourself, your key people, key processes, and customers accountable for the future? What do accountability and key performance operationally mean in an era where algorithms are smarter than you are? Increasingly, ML-driven KPIs will lead, guide, and oversee strategic outcomes. Today's 'balanced scorecards' are giving way to 'digital dashboards' that anticipate and predict opportunities, not just synthesize and summarize results. The interplay of Data Governance, Decision Rights, and Predictive KPIs will increasingly determine how organizations deliver profitable growth.

2:45pm

Panel Discussion: Corporate-Startup Partnerships: Is There a Formula for Success?
Sheri Brodeur
Director, MIT Corporate Relations



Sheri Brodeur
Director
MIT Corporate Relations

Sheri Brodeur is a Director of Corporate Relations at MIT. Prior to this, she spent 22 years at Hewlett-Packard Company in several roles. Her most recent position was in the HP Labs Strategy and Innovation Office. The role of this organization is to set HP Labs' research strategy and extend HP's internal research capacity by partnering with universities, governments, and other companies on a global scale to rapidly advance the positive impact of technology on the world.

Sheri spent 15 years with HP Labs, HP's corporate researcher center, managing major university alliances and programs, including a $25M program with MIT. She has been responsible for managing global higher education technology programs in the areas of Security, Digital Libraries (DSpace), Information Management, and Sustainability.

Prior to this role she spent the previous eight years at Hewlett-Packard in the sales organization moving from the position of Field Sales Engineer to Global Account Manager. In this role she was responsible for selling, supporting and delivering high end test and measurement solutions for the communications industry.

Brodeur has a BS in Ceramic Engineering from Alfred University and an MS in Solid State Science from the Materials Research Laboratory at Penn State University.

Andrew Backs
Cofounder & Chief Innovation Strategist, Pilot44 Labs
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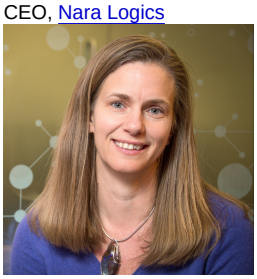
Cofounder & Chief Innovation Strategist
Pilot44 Labs

Andrew Backs is the founder of Pilot44, a passionate group of accomplished startup entrepreneurs, technologists, and marketers that utilize new lean methodologies to help large companies accelerate digital innovation and build new ventures. Pilot44 helps prototype, pilot, and validate startup-powered solutions that transform companies, solve business challenges, disrupt categories, and even lead to entirely new businesses. Prior to founding Pilot44, Backs led Procter & Gamble's open innovation effort in Silicon Valley. He is an experienced corporate entrepreneur that spent 10 years at P&G and has marketing, retail, finance, M&A, and extensive business development experience. Backs has a unique talent for bridging an entrepreneurial approach with the complexities of large company operations, cutting through the noise to bring meaningful solutions to market.

Jana Eggers
CEO, Nara Logics



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Jana Eggers is CEO of the neuroscience-inspired artificial intelligence platform company, Nara Logics. Eggers is an experienced tech exec focused on inspiring teams to build great products. Eggers has started and grown companies and led large organizations at public companies. She is active in customer-inspired innovation, the artificial intelligence industry, the Autonomy/Mastery/Purpose-style leadership, as well as running and triathlons. Eggers has held technology and executive positions at Intuit, Blackbaud, Los Alamos National Laboratory (computational chemistry and super computing), Basis Technology (internationalization technology), Lycos, American Airlines, Spreadshirt (ecomm), and multiple startups.

Damon Frost
Chief Information Officer, Procter & Gamble, Beauty
Damon Frost

3:30pm	Networking Break
3:55pm	Sloan Executive Education Eric Bergemann Senior Director, Executive Programs, MIT Sloan Executive Education

Eric Bergemann
Senior Director, Executive Programs
MIT Sloan Executive Education

Eric Bergemann is Senior Director of Executive Programs at the MIT Sloan School of Management, where he oversees a portfolio of non-degree executive programs. He has worked with firms in the fields of energy, pharmaceuticals/life science, mobility, high technology, banking/finance, and consumer products. Bergemann is active in business development, and is the Executive Education capability development leader in Program & Instructional Design Methodology and Improvement. In 2009, he received the MIT Sloan Appreciation Team Award.

View full bio

4:00pm

Lessons on Sourcing Innovation in the Digital Era
Neil Thompson

Director, MIT FutureTech Research Project at MIT's Computer Science and Artificial Intelligence Lab (CSAIL)
Principal Investigator, MIT Initiative on the Digital Economy

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Director, MIT FutureTech Research Project at MIT's Computer Science and Artificial Intelligence Lab (CSAIL)
Principal Investigator, MIT Initiative on the Digital Economy

Neil Thompson is the Director of the FutureTech research project at MIT's Computer Science and Artificial Intelligence Lab and a Principal Investigator at MIT's Initiative on the Digital Economy.

Previously, he was an Assistant Professor of Innovation and Strategy at the MIT Sloan School of Management, where he co-directed the Experimental Innovation Lab (X-Lab), and a Visiting Professor at the Laboratory for Innovation Science at Harvard. He has advised businesses and government on the future of Moore's Law, has been on National Academies panels on transformational technologies and scientific reliability, and is part of the Council on Competitiveness' National Commission on Innovation & Competitiveness Frontiers.

He has a PhD in Business and Public Policy from Berkeley, where he also did Masters degrees in Computer Science and Statistics. He also has a masters in Economics from the London School of Economics, and undergraduate degrees in Physics and International Development. Prior to academia, He worked at organizations such as Lawrence Livermore National Laboratory, Bain and Company, the United Nations, the World Bank, and the Canadian Parliament.

How do large corporations source their most important innovations? Whether internal through e.g. central R&D or innovation labs, or external through e.g. universities or startups? We interviewed/surveyed more than 350 firms from around the world, and their answers are surprising. For example, Open Innovation, particularly the flashier types, are actually used by fewer companies than one might assume. However, in the past five years there's greater momentum to seek out and practice Open Innovation, particularly for digital innovations. Even more interesting, we can see which sources are producing the most important innovations for companies, and whether those innovations convert to long-term competitive advantage. What lessons might you draw on innovation for your company?

4:45pm	Is Your CTO Obsolete? Findings from the MIT CTO Study Bruce Cameron Director, MIT System Architecture Lab

Bruce Cameron
Director
MIT System Architecture Lab

Bruce Cameron is the Director of the System Architecture Group at MIT. His research interests include technology strategy, system architecture, and the management of product platforms. Previously, Dr. Cameron ran the MIT Commonality study, a 30-firm investigation of platforming returns, which concluded that firms face systemic downward pressure on commonality, partially resulting from challenges capturing the costs of variety. Dr. Cameron has supervised over 50 graduate students and has directed research projects for Amazon, BP, Sikorsky, Nokia, Caterpillar, AMGEN, Verizon, and NASA. Current research efforts include:

- Platform management in large R&D organizations
- System architecture of complex systems
- Switching costs and retention incentives in ride-hailing firms
- Satellite mega-constellations in Lower Earth Orbit

Dr. Cameron is a co-founder of Technology Strategy Partners, a consultancy created to help firms to restructure product development organizations, build systems engineering functions, and identify new architectures. Dr. Cameron has led projects in Fortune 500 firms in high tech, medical devices, transportation, and consumer goods.

View full bio

Chief Technology Officers represent an increasingly valuable role in the C-suite, given recent technology-sector IPO frequency and valuations. However, CTOs are an amorphous group : they range from product developers (e.g. Bobby Murphy of Snap) to R&D portfolio managers (e.g. Dr. Greg Hyslop of Boeing) to technology evangelists (e.g. Werner Vogels of Amazon). Some CTOs deliver enormous value for their companies based on their decision-making and their presence, while others fade into the background noise of corporate overhead. In the face of long-term technology trends, how will you know if your CTO is contributing to the value of the firm? We will summarize the initial findings MIT CTO Study, an ongoing project to characterize the role and performance of CTOs.

5:30pm	Networking Reception

Day Two

8:30am	Registration with Light Breakfast
8:55am	Welcome Remarks

9:00am

Digitally Empower the World's Workers
Frederick Goff
Founder & CEO, Jobcase

Frederick Goff
Founder & CEO
Jobcase

Fred Goff is a leading voice in Worker advocacy and in bringing balance back to capitalism. Fred is the founder and CEO of Jobcase – a social platform that empowers over 100 million Americans as they manage their own future of work. Jobcase is a leader in “people-first tech-strategy” which includes democratizing the benefits of big data, machine learning and blockchain for the benefit of America’s workforce. Fred Goff holds a BS in Economics as well as an M.S. in Public Policy from Carnegie Mellon’s Heinz School and also earned an M.S. in the Management of Technology from MIT. Prior to switching his career to worker advocacy and tech, Fred enjoyed success as both a proprietary trader and machine-learning based hedge fund manager.

Jobcase, an MIT CSAIL-affiliated startup, empowers 100 million of the US working class. Applying data analysis and optimized outreach, they connect workers to jobs in trucking, warehouse, customer care, and more. The average worker today holds much anxiety surrounding economic conditions and technological changes, e.g. AI and automation. They need more than just job opportunities, and now seek knowledge and advice from an online community of like-minded workers in our increasing gig economy to succeed. Blue- and pink-collar workers often do not know how to address their concerns within the workplace or how to transition into different positions without having to start from the bottom again. Having tools that can reach workers from the top-down and that allow them to connect with each other is essential to empowering the worker and ultimately fuel an ambitious future workforce.

9:40am

Spotting Influential Retail Customers for Targeted Offers with Machine Learning

Georgia Perakis

William F Pounds Professor of Management
Professor of Operations Research and Operations Management
MIT Sloan

Georgia Perakis

William F Pounds Professor of Management
Professor of Operations Research and Operations Management
MIT Sloan

Perakis teaches courses and performs research on analytics, optimization, dynamic pricing, revenue management, and supply chain, among others. At MIT over the years, she has taught in a variety of programs such as MBA, EMBA, undergraduate, MSc, and PhD programs across MIT. For her teaching, Perakis won the Graduate Student Council Teaching Award in 2002 as well as the Jamieson Prize in 2014 for excellence in teaching and the Teacher of the Year award (among all faculty at the MIT Sloan School) in 2017.In her research, she investigates the theory and practice of analytics. She is particularly interested on how to solve complex and practical problems in pricing, revenue management, supply chains, logistics and energy applications among others. Perakis has widely published in some of the flagship journals of the field such as Operations Research, Management Science, POM, Mathematics of Operations Research, and Mathematical Programming, among others.She has received the CAREER Award from the National Science Foundation and the PECASE Award from the Office of the President on Science and Technology. In 2016, she was elected as an INFORMS Fellow, a group that recognizes individuals for lifetime achievement to the field. In addition to the above, her work has received recognition with awards such as the TSL Best Paper Award, the Best Paper competition of the Informs Service Science Section several times, as well as Best Application of Theory Award from NEDSI (Northeast Decision Sciences Institute) Conference. Her work on promotions with the Oracle RGBU was a finalist at the Practice Award of the RMP Section of INFORMS in 2015. In addition, her work on predicting demand for new products that was tested with Johnson and Johnson won first place at the Applied Research Challenge Competition in 2018.

Perakis has a passion for supervising PhD, master's, and undergraduate students, and builds lifelong relationships with them. So far, she has graduated twenty-one PhD and forty-eight master's students. In 2012, she received the Samuel M. Seegal Award for inspiring student to achieve excellence.

From 2009 to July 2015, Perakis served as the Sloan faculty CoDirector of the Leaders for Global Operations (LGO, former LFM) Program at MIT (joint program between the Sloan School and the School of Engineering). She has also served as the group head of the Operations Management group at MIT Sloan School from 2010-2017. Currently, she is serving as the faculty director of the Executive MBA (EMBA) program at MIT Sloan.She also currently serves as an associate editor for the flagship journals of the field: Management Science, Operations Research, MSOM, the INFORMS Journal on Optimization, and as a senior editor for POM. She has served as the chair of the RMP Section of INFORMS and as the VP of Meetings of the MSOM Society of INFORMS. Perakis holds a BS in mathematics from the University of Athens, as well as an MS in applied mathematics and a PhD in applied mathematics from Brown University.

View full bio

Online shopping has given rise to a wealth of data previously unavailable to retailers. This data has created new opportunities for companies to personalize their services to individual customers, such as through targeted promotions and personalized assortments and pricing. As a side benefit, knowledge of individual customer behavior can also help improve sales forecasting. But in order to develop consumer-targeted strategies, we first need a demand forecasting model that captures "trends" between customers (or groups of customers). Using customers' purchase information, we have developed a machine learning algorithm that incorporates potential trends between groups of customers based on their transaction history. Unlike previous models, this model can even estimate customer demand with transaction data alone. This personalized forecasting also allows us to optimize targeted promotions to improve profits.

10:20am

Discovering Your Way to Greatness: How the Most Successful Organizations Repeatedly Get to the Right Answers Fastest

Steven Spear
Senior Lecturer, MIT Sloan School of Management
Senior Fellow, Institute for Healthcare Improvement
Principal, See to Solve LLC

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Senior Lecturer, MIT Sloan School of Management
Senior Fellow, Institute for Healthcare Improvement
Principal, See to Solve LLC

How some organizations generate value faster than others, with rewards for all stakeholders, is the focal question for Steve Spear (DBA MS MS), senior lecturer at MIT, author of *The High Velocity Edge*, and patent holder for the See to Solve Real Time Alert System. Winners create new knowledge and skills faster—ideally, everyone discovering something new always. These ideas have been expounded across *Harvard Business Review, Annals of Internal Medicine* and *Academic Medicine, School Administrator*, and *Proceeding of the US Naval Institute*. Proofs in practice include Pratt and Whitney's winning the F-35 engine contract, the Pittsburgh Regional Healthcare Systems "Perfecting Patient Care System," standing up the Alcoa Business System, and development/promotion of the Navy's High Velocity Learning initiative.

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Knowing how to manage complex undertakings—invention of new science, development of new products, stand up of new systems, operation of sprawling operations—such that new knowledge and skills are developed at incredible speed is a source of sustainable competitive advantage. But how does this advantage translate? We undertake projects, programs, and the like because there is a problem for which no solution exists. It has to be invented, and the faster and easier we discover our way to the right answers, the better for all of our stakeholders. Do that repeatedly and consistently, and competitors cannot keep up. Existing opportunities to build knowledge and skills will be identified during planning, practice, and performance with examples from drug development, software design, social services, and military applications.

11:00am

Networking Break

11:20am

How to Translate Strategy into Results

Donald Sull

Professor, Technological Innovation, Entrepreneurship, and Management, MIT Sloan School of Management

Donald Sull

Professor, Technological Innovation, Entrepreneurship, and Management, MIT Sloan School of Management

Dr. Donald Sull is a Professor of the Practice at the MIT Sloan School of Management, where he directs the Measuring Culture and Strategic Agility projects and teaches courses on competitive strategy and strategy execution. Sull was formerly a Professor at Harvard Business School and London Business School and received his bachelor's, master's, and doctorate degrees from Harvard University.

Sull has published six books and over 100 cases and articles, including a dozen best-selling *Harvard Business Review* articles and *MIT Sloan Management Review's* most popular strategy article of all time. The Economist named him “a rising star in a new generation of management gurus” and identified his theory of active inertia as an idea that shaped business management over the past century. Fortune listed him among the ten new management gurus.

He has advised top teams and boards of more than fifty Fortune Global 500 companies, as well as non-business organizations ranging from the Bill and Melinda Gates Foundation to the Naval Criminal Investigative Service (NCIS) and the Sultan of Oman. Prior to academia, he worked as a strategy consultant with McKinsey & Company and as a management investor with the leveraged buyout firm Clayton, Dubilier & Rice.

Sull is the co-founder and CEO of CultureX, which leverages proprietary AI to measure and improve corporate culture, and an advisor to several start-ups, including Betterworks, Tomorrow.io, and eToro.

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A recent survey of more than 400 global CEOs revealed that excellence in execution was the number one challenge facing corporate leaders, ahead of issues including innovation, geopolitical instability, and top-line growth. These executives are right to worry about execution. Most companies struggle to translate their strategy into results. Between one-half and two-thirds of companies fall short when it comes to achieving their strategic priorities. This session will provide evidence on key obstacles to strategy execution, and practical tips for how to translate strategy into results.

Noon

Disruptive Demographics: Leading a Five-Generation Workforce in Today's Longevity Economy
Joseph Coughlin

Director
MIT AgeLab

Joseph Coughlin

Director
MIT AgeLab

Joseph Coughlin, PhD is Director of the MIT AgeLab. Based in the Center for Transportation & Logistics, he teaches in MIT's Department of Urban Studies & Planning and the Sloan School's Advanced Management Program. Coughlin conducts research on the impact of global demographic change and technology trends on consumer behavior and business strategy. He advises a wide variety of global firms in financial services, healthcare, leisure and travel, luxury goods, real estate, retail, technology, and transportation. Coughlin has served on advisory boards for firms such as Bell Canada, British Telecom, Daimler, Fidelity Investments and Sanofi-Aventis. He was appointed by President George W. Bush to the White House Advisory Committee on Aging and by Governor Charlie Baker to the Governor's Council on Aging in Massachusetts, where he co-chaired the Innovation & Technology Subcommittee. A Behavioral Sciences Fellow of the Gerontological Society of America and a Fellow of Switzerland's World Demographics & Ageing Forum, Coughlin is a Senior Contributor to *Forbes* and writes regularly for *MarketWatch* and the *Wall Street Journal*. He was named by Fast Company Magazine as one the '100 Most Creative in Business' and by the Wall Street Journal as inventing the future of retirement. Recently, Coughlin was recognized as one of 15 World Minds by the Zurich-based World Minds, a select community of global leaders in science, arts and business. His new book, *The Longevity Economy: Inside the World's Fastest Growing, Most Misunderstood Market* (Public Affairs, 2017), is one of CEO READ's Business Bestsellers.

View full bio

The key to driving innovation lies in inspiring and motivating your workforce. But how does this apply to today as employers must engage an entire lifespan of workers? Each generation holds their own language, expectations, and life challenges, and addressing these individually is expensive and offers no guarantee of success. Instead, we should consider what these groups have in common. This talk introduces us to the greater "Gen S" – that is, Generation Stressed – whose most in-demand commodity is attention. Employees are constantly juggling an ever-increasing volume, velocity, and complexity of issues that vie for their attention and engagement, and employers must actively compete to both gain and sustain their attention. Drawing upon research in psychology, marketing, and cognitive engineering, this talk will describe the dynamics of Gen S and how employers can attain agenda status for employees across the lifespan.

12:40pm

Adjournment with Bagged Lunch