2024 MIT AI Conference: Tech, Business, and Ethics

February 28, 2024 - February 29, 2024

Day 1 | Wednesday February 28, 2024

8:00 AM	Registration and Light Breakfast

9:00 AM

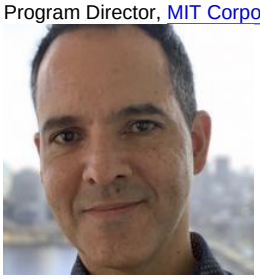
Welcome and Introduction
Gayathri Srinivasan
Executive Director, MIT Corporate Relations

Gayathri Srinivasan
Executive Director
MIT Corporate Relations

Dr. Srinivasan is a distinguished scientist who received her PhD in Microbiology from The Ohio State University in 2004, where she contributed to the discovery of the 22nd amino acid, Pyrrolysine (2002). She first came to MIT as an NIH Postdoctoral Fellow in Prof. Tom Rajbhandary's lab, where her research focused on understanding protein synthesis mechanisms in Archaea.

Dr. Srinivasan subsequently moved into the business development and technology licensing space, serving in MIT's Technology Licensing Office, where she helped commercialize technologies in medical devices and alternative energies. She then moved to UMass Medical School's Office of Technology Management in 2009 and to Emory University in Atlanta in 2014 as the Director of Public and Private Partnerships for the Woodruff Health Sciences Center. In 2019, Dr. Srinivasan joined Emory's Office of Corporate Relations as Executive Director, and in 2021, she led the Office of Corporate and Foundation Relations.

José Ramos
Program Director, MIT Corporate Relations



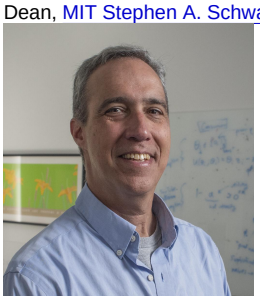
José Ramos
Program Director
MIT Corporate Relations

José Ramos comes to CR from OSRAM (R&D), where he was Head of Engineering and Business Development at Innovation Americas. In his role at OSRAM, Ramos was a strong proponent of the ILP, attended many of our events, and experienced first-hand the OSRAM-ILP relationship. Before OSRAM, Ramos was Project Developer at NORESCO/United Technologies in Westborough, MA, where he managed engineering, sales, marketing, financial and legal teams to implement sustainability projects for industrial, commercial, and institutional customers in the US and the Caribbean. Before that, Ramos was an independent technology consultant for many years focused on Spanish-speaking markets. Ramos has also held positions as Lecturer at MIT (Spanish), Engineering Manager (Shooshanian Engineering), and Mechanical Engineer for Central America and Caribbean projects (Stone & Webster).

Ramos earned a Bachelor of Science in Mechanical Engineering at MIT and a Master of Arts in Spanish at Boston College. He also completed a one-year Icelandic language program at the University of Reykjavik.

9:15 AM

AI Governance: A Framework for a Safe and Thriving AI Sector
Daniel Huttenlocher
Dean, MIT Stephen A. Schwarzman College of Computing



Daniel Huttenlocher
Dean
MIT Stephen A. Schwarzman College of Computing

Daniel Huttenlocher is the inaugural dean of the MIT Stephen A. Schwarzman College of Computing. He began his academic career at Cornell University in 1988, where he was a member of the computer science faculty. In 1998, he chaired the task force that led to the creation of Cornell's interdisciplinary Faculty of Computing and Information Science, later serving as its dean starting in 2009. In 2012, he became the founding dean of the new Cornell Tech campus in New York City.

Huttenlocher has extensive industry experience, having served as a scientist and lab director at Xerox's Palo Alto Research Center for 12 years before leaving to help establish a financial technology startup, Intelligent Markets, in 2000.

Huttenlocher's research and scholarship in computer science is broad and interdisciplinary, spanning algorithms, social media, and computer vision. He has earned the Longuet-Higgins Award for Fundamental Advances in Computer Vision (2010), and various fellowships and awards from the National Science Foundation, the Association for Computing Machinery, IEEE, and Phi Beta Kappa.

He is a member of the boards of directors of Amazon and Corning, and of the John D. and Catherine T. MacArthur Foundation, where he has served as chair since 2018.

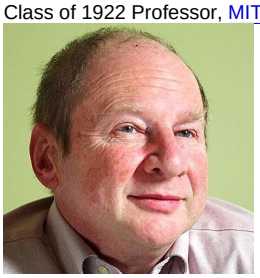
Huttenlocher earned a bachelor's degree from the University of Michigan in 1980, double-majoring in computer and communication sciences and experimental psychology. An MIT alumnus, he earned an SM in electrical engineering and computer science in 1984 and a PhD in computer science in 1988.

View full bio

It is important to achieve broadly beneficial outcomes from the use of AI, including enhancing rather than diminishing human agency, realizing shared prosperity by deploying AI in ways that can create broadly accessible opportunities, consistency with societal norms and civic values, and prioritizing safety. With such objectives in mind, we offer discussion and guidance regarding how AI governance might proceed.

9:45 AM

Education and AI
Hal Abelson
Class of 1922 Professor, MIT Department of Electrical Engineering and Computer Science



Hal Abelson
Class of 1922 Professor
MIT Department of Electrical Engineering and Computer Science

Prof. Abelson is a Professor of Computer Science and Engineering in the EECS department at MIT and a Fellow of the IEEE. He has received many awards for teaching computer science, including the Bose Award, the Taylor L. Booth Education Award, the ACM Special Interest Group on Computer Science Education Award for Outstanding Contribution to Computer Science Education, and the ACM Karl Karlstrom Outstanding Educator Award.

Throughout his impressive career, he has played key roles in fostering MIT institutional educational technology initiatives including MIT OpenCourseWare and DSpace, and he has served as co-chair of the MIT Council on Educational Technology.

His focus on both education and democratizing culture and intellectual resources has made him a leader in this field. He is a founding director of Creative Commons, Public Knowledge, and the Free Software Foundation. Within CSAIL he is also involved with the Internet Policy Research Initiative (IPRI), which collaborates with policy-makers and technologists to improve the trustworthiness and effectiveness of interconnected digital systems like the internet. He is also a co-author of the 2008 book *Blown to Bits*, which talks about the cultural and political disruptions caused by the information explosion.

Prof. Abelson is pursuing projects with this overall theme of making information technology more accessible for all.

10:15 AM

Networking Break

10:30 AM

Faculty Briefings and Panel Discussion
Elenna Dugundji
Research Scientist, MIT Center for Transportation and Logistics

Elenna Dugundji
Research Scientist
MIT Center for Transportation and Logistics

Elenna Dugundji is a Research Scientist at the MIT Center for Transportation and Logistics. She shapes Supply Chain futures by bringing expertise in demand forecasting, machine learning, and AI to research in main port logistics, involving Network analytics, Optimization of operational processes, Tactical planning, and Strategic asset management.

- *Network analytics* - impact of planned road disruption on feeder highways to airports and maritime ports and evaluation of public works maintenance schemes
- *Optimization of operational processes* - improvement of import and export processes involving warehousing, airside and landside transport via information sharing and collaborative planning
- *Tactical planning* - evaluation of routing and packaging decisions for cold chain logistics of special air cargo (Pharma, Fresh) in the context of economic and environmental sustainability
- *Strategic asset management* - strategic decisions in airports and maritime ports related to maintenance of assets and construction of facilities

In this briefing, several examples will be highlighted of the application of AI and Machine Learning across the Supply Chain for the Pharmaceutical Industry. All examples have been examined in the past two years with students in the MIT CTL Master of Supply Chain Management program. These include:

- **Procurement** – Categorization and Sub-categorization of Unclassified Spend Data

- **Warehousing** – Product Demand Forecasting (e.g., to realize minimal moving distance of cranes in an automated warehouse)

- **Cold Chain Packaging** – Analysis of Thermal Conditions of Pharmaceutical Transport Lanes (e.g. to support decision making processes on preferred routes and logistics service options throughout the year)

- **Cold Chain Distribution** – Pharmaceutical Distribution Business Continuity Plan

The briefing will conclude with a call for participation in a frontier research project on innovations in supply chain logistics for the pharmaceutical industry.

Leigh Hafrey
Senior Lecturer, Communication and Ethics, MIT Sloan School of Management

Leigh Hafrey
Senior Lecturer, Communication and Ethics
MIT Sloan School of Management

Leigh Hafrey is Senior Lecturer in Behavioral and Policy Sciences at the MIT Sloan School of Management. Since 1995, he has offered courses in communication, ethics, and leadership in the MBA and other graduate programs in the U.S. and abroad. He has also taught at Harvard Business School; served as co-Master of Mather House, one of the undergraduate residences in Harvard College; and for more than 20 years has moderated seminars in programs of the Aspen Institute, an international educational and policy studies organization focused on values-driven leadership. He serves on the boards of the Green Rural Opportunities Fund, a spin-off of the Butajira, Ethiopia-based GreenPath Food, and ClassACT HR73, an alumni initiative of the Harvard-Radcliffe Class of 1973.

11:30 AM

MIT Horizon
Kathleen D Kennedy
Executive Director, MIT Center for Collective Intelligence

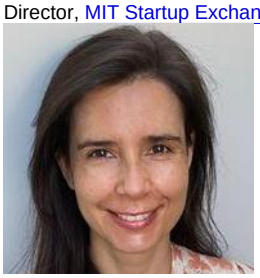
Kathleen D Kennedy
Executive Director
MIT Center for Collective Intelligence

With multiple leadership roles at MIT, Kathleen is on the front lines of technology and innovation. Right now, she is passionate about AI education, digital transformation, and sustainable fashion. She is a strategic leader with a unique skill set for transforming organizations as well as building new ones.

As Executive Director of the MIT Center for Collective Intelligence, Kathleen works with a multidisciplinary research team on Supermind Design, a methodology for designing intelligent human/machine organizations. She is putting that into practice at MIT Open Learning, where she leads MIT Horizon, a digital learning platform helping organizations to train at scale about emerging technologies such as AI.

11:40 AM

MIT Startup Exchange Lightning Talks
Catarina Madeira
Director, MIT Startup Exchange



Catarina Madeira
Director
MIT Startup Exchange

Catarina has been working with the Cambridge/Boston startup ecosystem for over 10 years and joined Corporate Relations with a solid network in the innovation and entrepreneurial community. Prior to MIT, she was part of the team that designed and launched the startup accelerator IUL MIT Portugal, which was later rebranded as Building Global Innovators. She was based in Lisbon and worked in direct relation with the Cambridge team. She held positions including Operations Coordinator, Program Manager, and Business Developer. The accelerator soon achieved steady growth in large part due to the partnerships that Catarina led with regional and global startup ecosystems. After that, she worked at NECEC, leading a program that connects cleantech startups and industry. In this role, she developed and built a pipeline of startups and forged strong relationships with both domestic and European companies. She has also held positions in Portugal and France, including at Saboaria e Perfumaria Confiança and L'Oréal as Technical Director and Pharmacist. Catarina earned her bachelor's in chemistry and pharmaceutical sciences in Portugal. She went on to earn her Master of Engineering for Health and Medicines in France.

Paloma Gonzalez-Rojas
Co-Founder and CEO
Atacama Biomaterials

Francis Huang
CEO & Co-Founder
Apers_

Mazdak Tootkaboni
Co-Founder
Carbin AI

Ishaan Grover
Co-Founder
catalan.ai

Erez Kaminski
Founder and CEO
Ketryx

Snejana Shegheva
Chief Architect
Nara Logics

Bindu Chanagala
Co-Founder and Chief Product Officer
Nurtur

Kevin Christopher
Co-Founder and CEO
Quantiscope

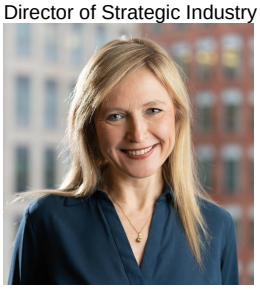
Fadi Micaelian
CEO
Sparkdit

12:30 PM

Lunch with Startup Exhibit

1:30 PM

Responsible Generative AI in Research
Aude Oliva
MIT Director, MIT-IBM Watson AI Lab
Director of Strategic Industry Engagement, MIT Schwarzman College of Computing



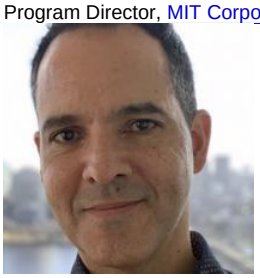
Aude Oliva
MIT Director, MIT-IBM Watson AI Lab
Director of Strategic Industry Engagement
MIT Schwarzman College of Computing

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.

Focusing on the governance and regulatory angles of developing generative AI for academic research, this talk will discuss recent developments in the US and the EU regarding responsible AI models, focusing on the dataset used to train models, the capabilities and failure modes of foundation models, and the impact of scaling models.

1:50 PM

Industry Panel Discussion
José Ramos
Program Director, MIT Corporate Relations

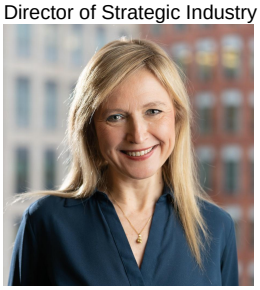


José Ramos
Program Director
MIT Corporate Relations

José Ramos comes to CR from OSRAM (R&D), where he was Head of Engineering and Business Development at Innovation Americas. In his role at OSRAM, Ramos was a strong proponent of the ILP, attended many of our events, and experienced first-hand the OSRAM-ILP relationship. Before OSRAM, Ramos was Project Developer at NORESCO/United Technologies in Westborough, MA, where he managed engineering, sales, marketing, financial and legal teams to implement sustainability projects for industrial, commercial, and institutional customers in the US and the Caribbean. Before that, Ramos was an independent technology consultant for many years focused on Spanish-speaking markets. Ramos has also held positions as Lecturer at MIT (Spanish), Engineering Manager (Shooshanian Engineering), and Mechanical Engineer for Central America and Caribbean projects (Stone & Webster).

Ramos earned a Bachelor of Science in Mechanical Engineering at MIT and a Master of Arts in Spanish at Boston College. He also completed a one-year Icelandic language program at the University of Reykjavik.

Aude Oliva
MIT Director, MIT-IBM Watson AI Lab
Director of Strategic Industry Engagement, MIT Schwarzman College of Computing



Aude Oliva
MIT Director, MIT-IBM Watson AI Lab
Director of Strategic Industry Engagement
MIT Schwarzman College of Computing

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.

Prasanna Sattigeri
Principal Research Scientist, IBM Research AI and
MIT-IBM Watson AI Lab

Teddy Ort
Sr. Director Robot Perception & AI
Symbotic

2:30 PM

Resilient AI-Enabled Business Processes and Systems
Retsef Levi
J Spencer Standish (1945) Professor of Management
Professor of Operations Management, MIT Sloan School of Management

Retsef Levi
J Spencer Standish (1945) Professor of Management
Professor of Operations Management
MIT Sloan School of Management

Retsef Levi is the J. Spencer Standish (1945) Professor of Operations Management at the MIT Sloan School of Management. He is a member of the Operations Management Group at Sloan and affiliated with the Operations Research Center. Before coming to MIT, he spent a year in the Department of Mathematical Sciences at the IBM T.J. Watson Research Center as the holder of the Goldstine Postdoctoral Fellowship. He received a Bachelor's degree in Mathematics from Tel-Aviv University (Israel) in 2001, and a PhD in Operations Research from Cornell University in 2005. Levi spent more than 11 years in the Israeli Defense Forces as an Officer in the Intelligence Wing and was designated as an Extra Merit Officer. After leaving the Military, Levi joined and emerging new Israeli hi-tech company as a Business Development Consultant.

Levi's current research is focused on the design of analytical data-driven decision support models and tools addressing complex business and system design decisions under uncertainty in areas, such as health and healthcare management, supply chain, procurement and inventory management, revenue management, pricing optimization and logistics. He is interested in the theory underlying these models and algorithms, as well as their computational and organizational applicability in practical settings. Levi is leading several industry-based collaborative research efforts with some of the major academic hospitals in the Boston area, such as Mass General Hospital (MGH), Beth Israel Deaconess Medical Center (BIDMC), Children’s Hospital, and across the US (e.g., Memorial Sloan Kettering Cancer Center, NYC Prebyterian Hospital System and the American Association of Medical Colleges). Levi is the lead PI on an MIT contract with the Federal Drug Administration (FDA) to develop systematic risk management approach to address risk related to economically motivated adulterations of food and drug products manufactured in China. He has also been involved in developing operational risk and process safety management methodologies for various organizations, in the healthcare, pharmaceutical and oil industries. Levi received the NSF Faculty Early Career Development award, the 2008 INFORMS Optimization Prize for Young Researchers and the 2013 Daniel H. Wagner Prize.

View full bio

3:15 PM

Networking Break

3:30 PM

Legal Regenerative AI

Dimitris Bertsimas
Boeing Professor of Operations Research
Co-Director, Operations Research Center (ORC)
Faculty Director, Master of Business Analytics, MIT Sloan School of Management

Dimitris Bertsimas
Boeing Professor of Operations Research
Co-Director, Operations Research Center (ORC)
Faculty Director, Master of Business Analytics
MIT Sloan School of Management

Dimitris Bertsimas is the Boeing Professor of Operations Research, the codirector of the Operations Research Center, and faculty director of the Master of Business analytics at MIT. His research interests include optimization, machine learning and applied probability and their applications in health care, finance, operations management, and transportation. Bertsimas has coauthored more than 200 scientific papers and four graduate level textbooks. He is the editor in Chief of INFORMS Journal of Optimization. He has supervised 67 doctoral students and is currently supervising 25 others. Bertsimas is a member of the National Academy of Engineering, an INFORMS fellow, and has received numerous prestigious research and teaching awards. He holds an SM in applied mathematics and a PhD in operations research from MIT.

View full bio

In these early days of readily accessible Generative AI, the benefits are often hard to quantify. This talk will give a concrete example of the potential power of this technology during something as complex and time-consuming as a legal negotiation.

4:00 PM

Generative AI, Ethics and Work of the Future
Julie Shah
Interactive Robotics Group Leader, MIT CSAIL
H.N. Slater Professor, MIT Department of Aeronautics and Astronautics

Julie Shah
Interactive Robotics Group Leader, MIT CSAIL
H.N. Slater Professor
MIT Department of Aeronautics and Astronautics

Julie Shah is the H.N. Slater Professor of Aeronautics and Astronautics at MIT and leads the Interactive Robotics Group of the Computer Science and Artificial Intelligence Laboratory. Shah received her SB (2004) and SM (2006) from the Department of Aeronautics and Astronautics at MIT, and her PhD (2010) in Autonomous Systems from MIT. Before joining the faculty, she worked at Boeing Research and Technology on robotics applications for aerospace manufacturing. She has developed innovative methods for enabling fluid human-robot teamwork in time-critical, safety-critical domains, ranging from manufacturing to surgery to space exploration. Her group draws on expertise in artificial intelligence, human factors, and systems engineering to develop interactive robots that emulate the qualities of effective human team members to improve the efficiency of human-robot teamwork. In 2014, Shah was recognized with an NSF CAREER award for her work on “Human-aware Autonomy for Team-oriented Environments," and by the MIT Technology Review TR35 list as one of the world’s top innovators under the age of 35. Her work on industrial human-robot collaboration was also recognized by the Technology Review as one of the 10 Breakthrough Technologies of 2013, and she has received international recognition in the form of best paper awards and nominations from the International Conference on Automated Planning and Scheduling, the American Institute of Aeronautics and Astronautics, the IEEE/ACM International Conference on Human-Robot Interaction, the International Symposium on Robotics, and the Human Factors and Ergonomics Society.

View full bio

4:45 PM

Adjournment with Networking Reception

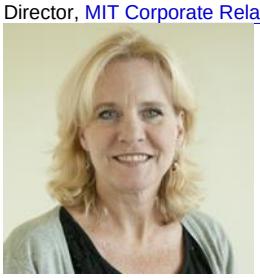
Day 2 | Thursday February 29, 2024: Generative AI and Work of the Future

8:30 AM

Registration and Light Breakfast

9:00 AM

Welcome and Introduction
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.

View full bio

9:05 AM

Overview of Generative AI and Work of the Future Working Group
Ben Armstrong
Executive Director, MIT Industrial Performance Center

Ben Armstrong
Executive Director
MIT Industrial Performance Center

Ben Armstrong is the executive director of MIT’s Industrial Performance Center. His research and teaching examine how workers, firms, and regions adapt to technological change. In his work, Ben has collaborated with governments, non-profit organizations, and firms to understand how scholarship and education can be useful to practitioners and policymakers. Previously, he worked for Google Inc. and served on the board of an open-source hardware non-profit. Ben received his PhD from MIT.

9:15 AM

Generative AI and Work of the Future Industry Panel
Ben Armstrong
Executive Director, MIT Industrial Performance Center

Ben Armstrong
Executive Director
MIT Industrial Performance Center

Ben Armstrong is the executive director of MIT's Industrial Performance Center. His research and teaching examine how workers, firms, and regions adapt to technological change. In his work, Ben has collaborated with governments, non-profit organizations, and firms to understand how scholarship and education can be useful to practitioners and policymakers. Previously, he worked for Google Inc. and served on the board of an open-source hardware non-profit. Ben received his PhD from MIT.

Adam Landman, MD
Chief Information Officer and SVP, Digital
Brigham and Women's Hospital

Sal Companieh
Chief Digital & Information Officer
Cushman & Wakefield

Jonathan DeBusk
Director of AI, Automation, and Workforce Science
IBM

10:15 AM

Networking Break

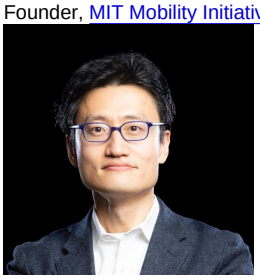
10:30 AM

Generative AI and the Work of the Future: Perspectives from the Financial Services, Healthcare and Transportation Sectors

Andrew Lo
Charles E. and Susan T. Harris Professor and the Director of the Laboratory for Financial Engineering
MIT Sloan School of Management

Kate Kellogg
David J. McGrath JR (1959) Professor of Management and Innovation
Professor, Work and Organization Studies
MIT Sloan School of Management

Jinhua Zhao
Professor of Cities and Transportation
Founder, MIT Mobility Initiative



Jinhua Zhao
Professor of Cities and Transportation
Founder
MIT Mobility Initiative

Jinhua Zhao is the Professor of Cities and Transportation at the Massachusetts Institute of Technology (MIT). Prof. Zhao integrates behavioral and computational thinking to decarbonize the world's mobility system.

Prof. Zhao founded the MIT Mobility Initiative, coalescing the Institute's efforts on transportation research, education, entrepreneurship, and engagement. He hosts the MIT Mobility Forum, highlighting transportation innovation from MIT and across the globe.

Prof. Zhao directs the JTL Urban Mobility Lab and Transit Lab, leading long-term collaborations with transportation authorities and operators worldwide and enabling cross-culture learning between cities in North America, Asia, and Europe.

Prof. Zhao leads the program "Mens, Manus, and Machina (M3S): How AI Impacts the Future of Work and Future of Learning" at the Singapore MIT Alliance for Research and Technology (SMART).

He is the co-founder and chief scientist for TRAM.Global, a mobility decarbonization venture.

Research Interest

He brings behavioral science and transportation technology together to shape travel behavior, design mobility systems, and reform urban policies. He develops computational methods to sense, predict, nudge, and regulate travel behavior and designs multimodal mobility systems that integrate automated and shared mobility with public transport. He sees transportation as a language to describe a person, characterize a city, and understand an institution and establishes the behavioral foundation for transportation systems and policies.

View full bio

11:30 AM	Panel Discussion

Guy Ben-Ishai
Head of Economic Policy Research
Google

Andrew Lo
Charles E. and Susan T. Harris Professor and the Director of the Laboratory for Financial Engineering
MIT Sloan School of Management

Kate Kellogg
David J. McGrath JR (1959) Professor of Management and Innovation
Professor, Work and Organization Studies
MIT Sloan School of Management

Jinhua Zhao
Professor of Cities and Transportation
Founder
MIT Mobility Initiative

12:00 PM	Adjournment with Bagged Lunch