MIT Industrial Liaison Program Faculty Knowledgebase Report

2023 MIT Innovations in Management Conference

March 8, 2023 - March 9, 2023

Day 1: March 8, 2023 (Wednesday)

8:00 AM

Registration and Light Breakfast

Welcome and Introduction
John Roberts
Executive Director (Interim), MIT Corporate Relations



John Roberts Executive Director (Interim) MIT Corporate Relations

John Roberts has been Executive Director of MIT Corporate Relations (Interim) since February 2022. He obtained his Ph.D. in organic chemistry at MIT and returned to the university after a 20-year career in the pharmaceutical industry, joining the MIT Industrial Liaison Program (ILP) in 2013. Prior to his return, John worked at small, medium, and large companies, holding positions that allowed him to exploit his passions in synthetic chemistry, project leadership, and alliance management while growing his responsibilities for managing others, ultimately as a department head. As a program director at MIT, John built a portfolio of ILP member companies, mostly in the pharmaceutical industry and headquartered in Japan, connecting them to engagement opportunities in the MIT community. Soon after returning to MIT, John began to lead a group of program directors with a combined portfolio of 60-80 global companies. In his current role, John oversees MIT Corporate Relations which houses ILP and MIT Startup Exchange.

Yuri Ramos

Program Director, MIT Industrial Liaison Program



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Program Director, MIT Industrial Liaison Program

Yuri Ramos brings 20 years of international experience, having worked with Information Technology for multinational companies in his native Brazil, throughout South America and in the United States. Before MIT, Yuri was with Santander Bank N.A., where he first worked as a Sr. Manager for online and mobile initiatives, and then as Chief of Staff for the CIO of Digital Channels.

Prior to Santander, Yuri was the co-founder and CEO of 2 startups in the EdTech space. In both endeavors he was responsible for strategy, business development and operations. Before this entrepreneurial period, Yuri held positions at Universo Online – Brazil's largest Internet portal - as Director of Operations and Senior Manager; at ACISION as Engineering Manager (Latin America Operations) and Senior Project Manager; and at Nortel Networks as Project Manager.

Yuri earned his Bachelor's degree in Mathematics at the University of Brasilia, and his MBA at MIT where he was a Sloan Fellow.

Reading the Macroeconomic Tea Leaves: Seismic Policy Changes and the Need for New Narratives

Deborah Lucas
Director of the MIT Golub Center for Finance and Policy
Sloan Distinguished Professor of Finance
MIT Sloan School of Management

Starting during the 2007 financial crisis and intensifying with the COVID-19 pandemic, monetary, fiscal, and regulatory policymakers around the world have rewritten and vastly expanded their policy playbooks. Those changes have fundamentally altered the mechanisms by which economic policies affect the markets and the macroeconomy, and the prospects for entrepreneurial firms. New narratives are essential for helping business leaders to think more clearly about how those policy changes will create new opportunities, but also how they give rise to new risks and challenges. Drawing on Prof. Lucas's research on these issues, in this session we will discuss:

- What some of the most important policy changes have been globally (e.g., largescale credit support programs; blurring of fiscal and monetary policy boundaries; evolving role of central banks)
- How they have impacted recent macroeconomic outcomes (e.g., inflation; depth of recession and speed of economic recovery; savings glut)
- Possible effects on the economy over the next few years (e.g., will inflation be tamed; hard or soft landing
- Critical questions for the more distant future (e.g., fiscal sustainability; greater stability or greater fragility)

Fighting the Enemy Within: Reversing Self-Inflicted Damage in Organizations to Dynamically Outperform Competitors During Economic Downturns

John Carrier

Senior Lecturer, System Dynamics, MIT Sloan School of Management



John Carrier Senior Lecturer, System Dynamics MIT Sloan School of Management

John Carrier is a senior lecturer in the System Dynamics Group at the MIT Sloan School of Management and Managing Director of 532 Partners. His expertise is in shaping the dynamics of operating environments to improve productivity, quality, safety, and morale simultaneously. He has helped companies save hundreds of millions of dollars by helping them find and eradicate the hidden systems lurking inside every operation. His current focus is to help prepare companies to compete in the new environment of Industry 4.0.

He has educated over five hundred top-level leaders in the MIT Sloan Executive Education program in Oil & Gas, petrochemicals, mining, and healthcare. When not teaching, he spends most of his time in the operating environment, working directly with the front line to deliver measurable results in less than sixty days.

Dr. Carrier holds a B.S. in Chemical Engineering from the University of Michigan, a Ph.D. in Control Systems from MIT, and an MBA from the Harvard Business School.

View full bio

In any business cycle, some companies emerge from the crisis far stronger than their peers. Based on over 70 years of MIT research, the answer is astonishingly simple: Winning organizations have a superior understanding of their own internal dynamic capabilities.

In this presentation, we will provide a simple yet rigorous MIT-based framework for assessing the current resiliency of your organization and identifying the sequence of steps your organization needs to take in order to rapidly re-adjust its trajectory through the current crisis. In particular, we will:

- Demonstrate how System Dynamics techniques dramatically outperform AI/ML algorithms for diagnosing organizational response and resilience.
- Understand how the Culture of "Unknown Knowns" leads to sluggish organizational capability, and it can be reversed through the paradigm of "Hidden Factories."
- Examine the Risk-Productivity Paradox:
- A focus on increasing productivity increases risk.
- A focus on decreasing risk increases productivity.
- Explore how to invest sparingly in technology to leverage the organization's current assets, avoiding large capital expenditures with less-than-expected returns.

10:55 AM

MIT Professional Education

11:00 AM

Networking Break

How to Get Value From Al When Data is Scarce Rama Ramakrishnan

Professor of the Practice, Data Science and Applied Machine Learning, MIT Sloan School of

Management



Rama Ramakrishnan Professor of the Practice, Data Science and Applied Machine Learning MIT Sloan School of Management

Rama Ramakrishnan is a Professor of the Practice at the MIT Sloan School of Management.

His research and teaching interests center on the application of data science and machine learning techniques to problems in industry and in the creation of products and services made intelligent by the algorithmic use of data.

Prior to joining MIT Sloan, Rama was a data science entrepreneur and tech executive for over 20 years. He has founded or been a senior executive in four software companies that have exited to technology titans: Oracle, Salesforce, and Demandware. He is active in the startup ecosystem as an advisor, angel investor, and board member.

Most recently, Rama was senior vice president at Salesforce (NYSE: CRM) and chief data scientist for Salesforce Commerce Cloud. In this role, he led Salesforce Einstein for Commerce—the analytics/machine-learning platform that powers Salesforce Commerce Cloud—and was responsible for product management, engineering, data science, and cloud production operations. The Einstein platform uses analytics techniques to predict and influence the shopping behavior of hundreds of millions of unique shoppers monthly.

The path that led Rama to Salesforce started in July 2010 when he founded a startup, CQuotient, to build a data-science-based personalization platform for retail and e-commerce. Backed by funding from Bain Capital Ventures, Rama built and grew the company to a successful exit to Demandware (NYSE: DWRE) in October 2014. As a member of the Demandware executive team, Rama was involved in the successful sale of Demandware to Salesforce in July 2016 for \$2.8 billion. CQuotient technology, now known as Salesforce Einstein for Commerce, is one of the top B2C recommendation engines in the world and influences the shopping behavior of billions of consumers annually.

Prior to founding CQuotient, Rama taught analytics at MIT Sloan, was chief scientist and VP of R&D at ProfitLogic, was chief analytics officer and VP of R&D for the retail business of Oracle, founded two analytics companies, and was a consultant at McKinsey & Company.

Rama has a BTech degree from the Indian Institute of Technology, Chennai and MS and PhD degrees from MIT.

View full bio

To unlock value from today's powerful AI models, large volumes of training data are considered necessary. For the consumer internet companies where many of today's AI models originated, this hasn't been difficult to obtain. But for companies in other sectors industrial companies, manufacturers, healthcare organizations, educational institutions curating labeled data in sufficient volume can be a significant and sometimes prohibitively expensive effort, resulting in a formidable barrier to putting AI to work.

There's good news on this front, however. Al practitioners and researchers have developed strategies over the last few years with the potential to significantly reduce the volume of labeled data needed to build accurate Al models. These approaches encompass ways to learn models with just unlabeled data, to transfer-and-adapt models across problems, as well as best practices around "iterating on data" to improve model performance. By using these approaches, it is often possible to build a good AI model with a fraction of the labeled data that might otherwise be needed.

We describe some of these strategies and offer guidelines on how they can be used in practice.

Startup 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.

Craig Wisneski Co-Founder Akkio

Michael Fleder Founder & CEO Covariance

Mike Stonebraker Co-founder Hopara

Sujeesh Krishnan CEO Kinnami

Kirsten Lloyd Co-founder & Head of Go-to-Market Modzy

Jeffrey Chou Co-founder & CEO Sync Computing

Matt Wilkerson Co-founder & CEO Paragon One

Alexander Whatley CEO and Co-Founder Vividly

Di Ye Founder and CEO Zhennovate

Sabin Thomas Founder and CTO Zing Data Welcome Back and Introduction Jong Hoon (Jon) Kim Program Director, MIT Corporate Relations



Jong Hoon (Jon) Kim Program Director MIT Corporate Relations

Jon Kim joined Corporate Relations in February 2022 as Program Director.

Jon comes to Corporate Relations with extensive experience in managing business and product development, and partnership with Korean and Asian companies.

Prior to MIT, Jon worked for several technology companies (Entegris, Amazon Alexa, Brooks Automation, Nuance Communications, VoiceSignal Technologies) leading product development and partnership with Korean and Asian companies in semiconductor, AI, voice assistant, mobile, robotics industry.

Before coming to US, Jon was Commercial Specialist at the US Embassy in Seoul (US Department of Commerce, Foreign Commercial Service). There he developed market entry and business strategies for US technology, energy, and automotive companies, and conducted market research and partner alliance programs. Jon also resolved many regulatory issues working with both Korean and US government agencies, for US automotive companies to increase sales in Korea significantly.

Jon earned his B.A. in Public Administration at the Yonsei University in Seoul, and his MBA at the University of Michigan.

Workshop: Managing Climate Risks and Opportunities

Jason Jay

Senior Lecturer, MIT Sloan School of Management Director, Sustainability Initiative at MIT Sloan



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Senior Lecturer, MIT Sloan School of Management Director, Sustainability Initiative at MIT Sloan

Jason Jay is a Senior Lecturer and Director of the MIT Sloan Sustainability Initiative. He teaches executive and masters-level courses on strategy, innovation, and leadership for sustainable business. He has helped secure MIT Sloan's position as a leader in the field of sustainability through teaching, research, and industry engagement. Dr. Jay's publications have appeared in the Academy of Management Journal, California Management Review, MIT Sloan Management Review, Stanford Social Innovation Review, Greenbiz, and World Economic Forum. With Gabriel Grant, he is the author of the international bestseller Breaking Through Gridlock: The Power of Conversation in a Polarized World. Dr. Jay also works as a facilitator for companies, organizations, and business families, supporting high quality conversation and shared commitment to ambitious sustainability goals. His clients have included EFG Asset Management, Novartis, Bose, Environmental Defense Fund, BP and the World Bank.

An engaging and interactive workshop where we will use the En-ROADS climate simulation tool to jointly build a scenario for a low carbon future, and explore the transition risks and business opportunities for participating companies.

3:40 PM MIT Sloan Executive Education

3:45 PM Networking Break

An Action Plan for Cyber Resilience Keri Pearlson

Executive Director, CAMS Interdisciplinary Consortium for Improving Critical Infrastructure Cybersecurity, MIT Sloan School of Management



Keri Pearlson
Executive Director, CAMS Interdisciplinary Consortium for Improving Critical Infrastructure
Cybersecurity
MIT Sloan School of Management

Dr. Keri Pearlson is the Executive Director of the research group Cybersecurity at MIT Sloan (CAMS). Dr. Pearlson has held positions in academia and industry including Babson College, UTexas-Austin, Gartner's Research Board, CSC, Hughes Aircraft Company, and AT&T. Her research studies topics at the intersection of MIS, business strategy and organizational design. Her current research projects focus on how organizations build a culture of cybersecurity, how to manage the cybersecurity vulnerabilities of Al/ML systems and how organizations build trust to share mitigations for cyber breaches. She's the lead author of the popular MIT textbook: Managing and Using Information: A Strategic Approach (7th edition published Jan.2020) and co-author of Zero Time: Providing Instant Customer Value. She has written dozens of papers and case studies, many of which included ground-breaking work which has influenced how managers and leaders think about, and manage, information. Dr. Pearlson holds a Doctorate in Business Administration (DBA) in MIS from Harvard Business School and a Masters (MS) in Industrial Engineering and Bachelors (BS) in Mathematics from Stanford.

Cybersecurity is about resilience – not protection. Although it is impossible to avoid all cyber risk, leaders can make their companies more resilient in the face of new threats.

Transformation Through Balance - Creative Process, Systems Thinking, and Agility

James Rhee Senior Lecturer, MIT Sloan School of Management and Founder red helicopter

In this lecture, you'll learn how to transform people, brands, and organizations by identifying and unleashing purpose through the systemic union of mathematical and creative systems through an immersive process, thereby making tangible the otherwise intangible. Through this process, leaders will gain a clearer and perhaps different perspective on ways to frame, operationalize, and measure critical success metrics in a rapidly changing environment. Implicit in the lecture will be a discussion about agility, change process, inclusion, and a new work consciousness. Discussion will be led by an acclaimed impact CEO, founder, investor, and TED Speaker who regularly works with global leaders across multiple industries.

Networking Reception + ILP 75th Anniversary Reception

Following the end of Day One, please join us for a **75th anniversary celebration** for the MIT Industrial Liaison Program (ILP). Program Directors, ILP staff, and members of the MIT community, will commemorate the ILP's role in connecting MIT and Industry. The reception will feature live music, and hors d'oeuvres, tapas, and cocktails.

Day 2: March 9, 2023 (Thursday)

4:50 PM

5:40 PM

Welcome Back and Introduction Eduardo Garrido Program Director, MIT Industrial Liaison Program



Eduardo Garrido Program Director MIT Industrial Liaison Program

Eduardo Garrido is a Program Director at the Office of Corporate Relations at MIT.

Eduardo Garrido has a strong multicultural and multidisciplinary background, with deep expertise in higher education, banking and management consulting, acquired in Argentina, Spain and USA. He currently serves as Program Director at the Industrial Liaison Program, Office of Corporate Relations (MIT), the largest conduit between corporations and MIT.

Before joining MIT, Eduardo was the Director of Santander Universities at Santander Bank, N.A., based in Boston, MA. In this role, he managed the institutional and business relationship with 46 universities, mainly in the northeastern US. He also served as Santander US representative at President Obama's 100,000 Strong in the Americas initiative and the Woman for Africa Foundation, among other relevant global higher education projects, and as Member of the Global President's Council at NYU and the Advisory Boards of the Deming Cup, ECLA (Columbia University) and Newcastle University Business School.

Before coming to the US, Eduardo had several roles at Banco Santander Rio (Argentina). As Director of Santander Universities, he started the first entrepreneurship initiative at Grupo Santander worldwide, including the launching of a business plan competition, the Technology Innovation Venture Capital Fund, and a national competitiveness development initiative. He also sponsored the first edition of MIT 50K in Argentina. As Director of Organization and Quality at Banco Santander Rio, he led the team that obtained the first Global ISO 9001:2000 certificate for a financial institution in Latin America, certifying all main processes and areas of the bank. He also steered the business process reengineering project for the whole Bank, partnering with Ernst & Young and McKinsey and Co and implemented the Retail Banking new operating model.

Before joining Banco Santander Rio, Eduardo was Senior Manager of the Financial Services and Capital Markets Group at Price Waterhouse Management Consultants in Madrid, Spain. He was the Practice Leader of Business Process Reengineering, Financial Risk Management and Risk Adjusted Profitability Measurement.

Before his assignment at Price Waterhouse he served as Director of Consulting Services at MSA International, Inc. and as Financial Control Manager at Citibank España, S.A.

Eduardo graduated as Industrial Engineer at Universidad de Buenos Aires and has a MBA degree from IE Business School.

Globalization has made organizations build efficient networks of stakeholders, such as suppliers, customers, carriers, and distributors, called supply chains, to gain competitive advantages. However, supply chains have become more complex due to abundant data, various operations, dynamic consumer behavior, and poor data-driven decision- and policy-making processes.

This workshop will discuss the impact of global macro trends such as socioeconomic crises, geopolitical changes, climate change, and other externalities, which increase uncertainty. We will analyze how supply chains have suffered from supply and demand shocks and how companies have created innovative strategies to build agility, adaptability, alignment, resilience, and flexibility. The workshop is enriched with testimonials and good practices shared by three global organizations.

A panel of academic experts and a select group of practitioners will address the following relevant questions:

- · What may agility, adaptability, and alignment do to improve supply chains?
- Why were supply chains unprepared to cope with the COVID-19 and SC crises?
- What strategies may your company deploy to increase your resilience, readiness, and responsiveness to uncertainty?
- · How can a company measure risks systematically across the supply chain?
- How to drive data- and model-driven decision-making processes into practice?

Chris Mejía-Argueta

Director, MIT SCALE Network - Latin America

Director, MIT Graduate Certificate in Logistics and SCM (GCLOG)

Founder & Director, MIT Food and Retail Operations Lab Research Scientist, MIT Center for Transportation and Logistics



Chris Mejía-Argueta

Director, MIT SCALE Network - Latin America

Director, MIT Graduate Certificate in Logistics and SCM (GCLOG)

Founder & Director, MIT Food and Retail Operations Lab

Research Scientist

MIT Center for Transportation and Logistics

Christopher Mejía Argueta is a Research Scientist at the MIT Center for Transportation and Logistics. He develops applied research on retailing operations and food supply chains for multiple stakeholders including consumer packaged goods manufacturers, carriers and retailers in the Food and Retail Operations Lab (FaROL). His research focuses on improving the efficiency, flexibility of operations in multiple stakeholders, designing route-to-market and logistics strategies to address changing purchasing patterns, coupling these dynamic consumer profiles with the retail landscape, and reducing undesired socioeconomic and health problems related to income disparity, social backwardness, food malnutrition, food waste by proposing sustainable policies, business models to help vulnerable population segments.

Dr. Chris Mejía is also the Director of the MIT Supply Chain and Global Logistics Excellence (SCALE) Network for Latin America. This initiative, conducted by the MIT Center for Transportation & Logistics in the region, aims to lead impactful research and education projects for all companies, public sector and society together with Latin American top universities and the support of the Center for Latin-American Logistics Innovation (CLI). In addition, Dr. Chris Mejía serves as the Director of the MIT Graduate Certificate in Logistics & Supply Chain Management (GCLOG), an elite program from the MIT SCALE Network, geared towards outstanding graduate students from Latin America.

He holds a M.Sc. in Industrial Engineering with focus on supply chain management and multicriteria optimization, and a PhD in Industrial Engineering with focus on Humanitarian Operations. Dr. Mejía got both degrees with *summa cum laude* honors (best grade, top 1% students) in both classes at Monterrey Tech, Mexico. In 2013, Dr. Mejía was the academic leader at CLI, where he developed dozens of projects with industry and other academic partners related to disaster response, green logistics, packaging and last-mile distribution in emerging markets. Prior to joining MIT CTL, Dr. Mejía Argueta was a Postdoctoral Fellow at Eindhoven University of Technology (TUe), the Netherlands, where he investigated retailing operations for emerging markets and formulated estimation models to analyze the prevalence of nanostores in emerging markets. He is author and editor of the books: 1) Reaching 50 Million Nanostores: Retail Distribution in Emerging Megacities, 2) Supply Chain Management and Logistics in Latin America: A multi-country perspective and 3) Supply Chain Management and Logistics in Emerging Markets.

He has over 12 years of experience and his work in over 10 countries in three different

10:35 AM

Networking Break

11:00 AM

ESG and Impact Investing: Opportunities and Unintended Consequences

Gita Rao
Associate Faculty Director, Master of Finance Program
Senior Lecturer, Finance
MIT Sloan School of Management

Companies are doubling down on ESG. And yet, as the sector grows in complexity, concerns about accountability and reporting are on the rise. A company can say it's committed to ESG, but how is it doing so? Is it disclosing the metrics of its carbon footprint, increasing board diversity, or revealing the inner workings of its supply chain? The stated purpose of ESG is building sustainable businesses for the long run with a stakeholder perspective. My talk will focus on three important issues:

- How are investors responding to the increasing demand for ESG? What are the
 positive and not-so-positive outcomes?
- The unintended consequences of a focus on ESG
- Three years into the COVID-19 pandemic, how has the approach of ESG investors shifted and evolved? What are the emerging opportunities?

11:50 AM

Innovating in Difficult Times: The Three Revivals of LEGO

David Robertson Senior Lecturer, Operations Management MIT Sloan School Management

No innovation lasts forever – a new product or service may get you a few years of growth, but over time competitors catch up and growth slows down. Companies are challenged to continually come up with new ways to innovate. In this talk, David Robertson will discuss the inspiring case study of LEGO, a company with some almost-deadly innovation failures and some stunning successes. At three different periods in its recent history, growth stopped at the company and it had to find new opportunities for growth. In this talk Robertson will talk about LEGO's history of innovation, and why this new growth period may be the company's greatest.

12:50 PM

Closing Remarks

12:55 PM

Adjournment with Bagged Lunch