Day 1: Wednesday, September 22

8:00 AM  Registration with Light Breakfast

9:00 AM  Welcome and Introduction

9:05 AM  MIT Innovation Ecosystem
         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.

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Using AI to Measure and Improve Corporate Culture
Donald Sull
Senior Lecturer, Technological Innovation, Entrepreneurship, and Strategic Management

Dr. Donald Sull is a Senior Lecturer at the MIT Sloan School of Management, where he directs the Strategic Agility Project and the Culture 500. He teaches courses on competitive strategy and strategy execution, and was a member of the committee that designed MIT's Master of Business Analytics program.

Sull was formerly a Professor at Harvard Business School and London Business School, and earned his bachelors, masters, and doctorate at Harvard University. Prior to academia, he worked as a strategy consultant with McKinsey & Company, and a management-investor with the leveraged buyout firm Clayton, Dubilier & Rice.

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 published five books and over 100 cases and articles, including a dozen best-selling Harvard Business Review articles.

Sull is the co-founder and CEO of CultureX, which leverages proprietary AI to measure and improve corporate culture. He is the chairman of FilmFish and an advisor to several start-ups including Betterworks, Tomorrow.io, and eToro. He has advised top teams 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).

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Culture strongly impacts an organization’s ability to attract, retain, and engage employees and ultimately performance outcomes including innovation, profitability, and revenue growth. Historically, however, culture has been difficult to measure. This session will present recent innovations in Natural Language Processing that help to measure culture robustly at scale.
Good Automation, Bad Automation: How we can shape the technologies transforming work
Ben Armstrong
Research Scientist, Industrial Performance Center and Initiative for Knowledge and
Innovation in Manufacturing

Ben Armstrong is the Interim Executive Director and a Research Scientist at MIT's Industrial
Performance Center. His research and teaching examine how workers, firms, and regions
adapt to technological change. His current projects include a national plan for the U.S.
manufacturing workforce in partnership with the Department of Defense, as well as a
regional playbook developing lessons for struggling regional economies in the United States.
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, Ben was a Research Fellow and Postdoctoral Research Associate at Brown
University, where he studied how workers, policymakers, and the public think about
automation and taught courses on technology, public policy, and capitalism. He worked with
the Provost to spearhead the Brown and the Innovation Economy initiative, which developed
a strategy for the university to contribute to good job growth in the region, and a faculty
colloquium on the future of work. In partnership with the State of Rhode Island and others,
he studied the longest autonomous vehicle public transit route in the United States to date.

Ben completed his undergraduate degree at Northwestern University and his PhD at MIT,
where he received the Lucian Pye Award for Outstanding Political Science PhD Dissertation.
Before graduate school, he helped lead an open-source hardware non-profit and worked at
Google Inc.

Waves of new technology have not yet led to mass unemployment. But there have been
winners and losers. Economists have shown how technological change in recent decades
has created more opportunities at the upper end of the labor market for college graduates
while the share of middle-wage jobs has shrunk. What can be done to support ongoing
innovation while also creating more opportunities to join the middle class? In this research,
Ben Armstrong explores the ways engineers design technologies – and executives adopt
them – can influence how those technologies affect workers. In organization-level research,
he examines what differentiates technologies that benefit workers from those that do not.
Drawing on examples from manufacturing and healthcare, he proposes approaches to
technology design and integration that can make automation more worker-friendly.

Networking Break
Deborah Ancona is the Seley Distinguished Professor of Management, a Professor of Organization Studies, and the Founder of the MIT Leadership Center at the MIT Sloan School of Management.

Her pioneering research into how successful teams operate has highlighted the critical importance of managing outside, as well as inside, the team’s boundary. This research directly led to the concept of X-Teams as a vehicle for driving innovation and helping organizations move from bureaucracies to more nimble forms. Ancona’s work also focuses on the concept of distributed leadership and on the development of research-based tools, practices, and teaching/coaching models that enable organizations to foster creative leadership at every level.

She is the author of the book, X-Teams: How to Build Teams That Lead, Innovate, and Succeed (Harvard Business School Press) and the related articles, “In Praise of the Incomplete Leader” and “Nimble Leadership: Walking the Line Between Creativity and Chaos” (Harvard Business Review). In addition to X-Teams, her studies of team performance have also been published in the Administrative Science Quarterly, the Academy of Management Journal, Organization Science, and the MIT Sloan Management Review. Her previous book, Managing for the Future: Organizational Behavior and Processes (South-Western College Publishing), centers on the skills and processes needed in today’s diverse and changing organization. Ancona has served as a consultant on leadership and innovation to companies such as Accenture, BiPharmaceuticals, the International Development Bank, Li & Fung, OCP, and Takeda.

Ancona holds a BA and an MS in psychology from the University of Pennsylvania and a PhD in management from Columbia University.

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Organizations today are navigating an increasingly complex and volatile business landscape, and the global COVID-19 crisis further highlighted the need to innovate and act quickly. In this session, Professor Ancona, Founder of the MIT Leadership Center, will present three key points for succeeding in a world of uncertainty. Leaders must possess the skills to track an ever-shifting environment and cultivate those skills in others. They need to create flexible teams that collaborate effectively with both internal and external partners. They must inspire their organizations to solve big problems and they can’t do all this alone — they need to bring in adaptive leaders at all levels, giving them autonomy to innovate but providing guardrails to prevent chaos. During this session, she will focus on these issues and, in particular, on:

1 - discovering and communicating your unique leadership signature
2 - creating xTEAMS as a road to innovation and leadership development
3 - moving from bureaucracies to more nimble forms of leadership
Jeremy Gregory is the Executive Director of the MIT Climate and Sustainability Consortium. In this role he coordinates the activities of a diverse set of industry leaders who work closely with the MIT community to drive priorities and strategy around sustainability, climate change mitigation, and adaptation.

Jeremy brings extensive experience in working with industry partners and diverse stakeholders across the Institute. In his most recent role as Executive Director of the MIT Concrete Sustainability Hub, Jeremy worked directly with industry leaders; drew links between academia, industry, and government; helped define strategy; and coordinated research activities with external collaborators. Jeremy has also served as a Faculty Fellow within MIT’s Office of Sustainability since 2018. In this role, he has collaborated with administration, faculty, staff, and students across campus to conduct analyses to support decisions related to strategies for lowering MIT’s environmental footprint, and advised staff and research fellows. In addition, early in its development, he was the Education Coordinator for the MIT Portugal Program’s Engineering Design and Advanced Manufacturing Focus Area, where he built education and research activities between MIT, three Portuguese universities, and numerous Portuguese companies. Through the Materials Systems Lab, Jeremy also conducted climate and sustainability research aimed at quantifying the economic and environmental implications of engineering and system design decisions in the context of many products, industries, and partners.

The experience Jeremy brings to the MCSC will greatly benefit ongoing efforts to identify meaningful links and synergies between member companies and the MIT community, as well as among member companies themselves. As described in the recently-released Fast Forward: MIT’s Climate Action Plan for the Decade, “In fields from aerospace to artificial intelligence, personal devices to packaged foods, MCSC member companies are working with MIT researchers and each other to dramatically speed the creation, testing, and deployment of practical climate solutions within their production processes, supply chains, and service models.” Jeremy will continue to build upon his existing work with the Office of Sustainability so that the consortium can support the Institute’s commitment to achieve net-zero emissions by 2026, also stated in the Climate Action Plan. His background will also provide critical insight into how to best grow the activities surrounding the inaugural cohort of MCSC Impact Fellows, a group that will bridge education, industry, and research, as well as grow future action-oriented MCSC events and workshops.

Jeremy holds a Bachelor of Science (BS) in mechanical engineering from Montana State University, and a Master of Science (MS) and PhD in mechanical engineering from MIT. Please join us in congratulating Jeremy on this new role.

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The recently formed MIT Climate and Sustainability Consortium (MCSC) brings together an influential group of industry leaders to closely collaborate with MIT on driving priorities and strategic direction setting around sustainability, climate change mitigation, and adaptation. The MCSC provides a link between academic innovation and rapid implementation for the most promising and equitable climate and sustainability industry opportunities. Jeremy will provide an overview of MCSC activities in its first year of existence and plans for scaling sustainability solutions.
MIT Startup Exchange Lightning Talks

1) **Sourcemap**: Supply chain transparency platform

2) **Einblick**: A radically faster approach to making data-driven decisions

3) **Sparkdit**: Human-like intelligence to elevate online traction with best recommendations

4) **Covariance**: Beyond external data with AI

5) **iQ3Connect**: Enabling remote collaboration beyond the flat screen

6) **Relativity6**: Predictive analytics for customer churn

7) **serviceMob**: The world’s first cross-industry and ontology-driven analytics platform for customer service and support

8) **TechNext**: Empirical Technology Forecasting

9) **Teranalytics**: Custom machine learning algorithms to turn your data into business advantage

Leonardo Bonanni
Founder & CEO
Sourcemap

Tim Kraska
CEO
Einblick

Fadi Micaielian
CEO
Sparkdit

Michael Fleder
Founder and CEO
Covariance

Ali Merchant
Co-founder and CEO
iQ3Connect

Alan Ringvald
CEO
Relativity6

Marcel Barrera
Senior VP of Strategy & Growth
serviceMob

Anuraag Singh
Co-founder and CTO
TechNext

Tomasz Grzegorczyk
CEO and Founder
Teranalytics

MIT Startup Exchange actively promotes collaboration and partnerships between over 1,500 MIT-connected startups and over 230 corporates that are members of MIT’s Industrial Liaison Program (ILP). We host a robust schedule of events and facilitate networking and introduction opportunities year round. Qualified startups are those founded and/or led by MIT faculty, staff, or alumni, or are based on MIT-licensed technology. MIT Startup Exchange and ILP are integrated programs of MIT Corporate Relations. STEX25 is a startup accelerator within MIT Startup Exchange, featuring 25 “industry-ready” startups that have proven to be exceptional with early use cases, clients, demos, or partnerships, and are poised for significant growth.
1:00 PM  Lunch with Startup Exhibit

1) SourceMap; 2) Einblick; 3) Sparkdit; 4) Covariance; 5) IQ3Connect; 6) Relativity6; 7) serviceMob; 8) TechNext; 9) Teranalytics;

10) Silverthread: Aligning software health with business performance goals (Lunch exhibit only)

2:00 PM  Doing Hybrid Work Well: Innovative Approaches for Minimizing Overload & Burnout
Erin Kelly
Sloan Distinguished Professor of Work and Organization Studies
Professor, Work and Organization Studies
Co-Director, Sloan Institute for Work and Employment Research

Erin L. Kelly is the Sloan Distinguished Professor of Work and Organization Studies at the MIT Sloan School of Management and Co-Director of the MIT Institute for Work and Employment Research. Erin conducts research in firms and other organizations to identify and evaluate changes in workplace policies and management practices that may improve workers’ wellbeing and advance equity while supporting strong organizational performance. Her book Overload: How Goods Jobs Went Bad and What to Do About It (Princeton University Press, 2020, co-authored with Phyllis Moen) is based on a major experiment in a Fortune 500 firm and received the Max Weber Award from the American Sociological Association in 2021. Erin studies, teaches, and speaks on work redesign and wellbeing, the future of work, and organizational practices to advance diversity, equity, and inclusion. She holds a Ph.D. in sociology from Princeton University.

Professor Kelly will share her research on a work redesign approach that supports hybrid work that is beneficial to both employees and organizations. She will draw on her book Overload: How Goods Jobs Went Bad and What to Do About It (Princeton University Press, 2020, co-authored with Phyllis Moen), which is based on a major experiment in a Fortune 500 firm. Kelly will identify research-based guiding principles for navigating the many possibilities for returning to offices in the pandemic period.

2:45 PM  Panel Discussion

3:30 PM  Networking Break
Deep Transformation with Smart Supply Chain Digitization
David Simchi-Levi
Professor of Engineering Systems
Head, MIT Data Science Lab

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Professor of Engineering Systems
Head
MIT Data Science Lab

David Simchi-Levi is a Professor of Engineering Systems at MIT and serves as the head of the MIT Data Science Lab. He is considered one of the premier thought leaders in supply chain management and business analytics.


Professor Simchi-Levi is the current Editor-in-Chief of Management Science, one of the two flagship journals of INFORMS. He served as the Editor-in-Chief for Operations Research (2006-2012), the other flagship journal of INFORMS and for Naval Research Logistics (2003-2005).

In 2020, he was awarded the prestigious INFORMS Impact Prize for playing a leading role in developing and disseminating a new highly impactful paradigm for the identification and mitigation of risks in global supply chains.

He is an INFORMS Fellow and MSOM Distinguished Fellow and the recipient of the 2020 INFORMS Koopman Award given to an outstanding publication in military operations research; Ford Motor Company 2015 Engineering Excellence Award; 2014 INFORMS Daniel H. Wagner Prize for Excellence in Operations Research Practice; 2014 INFORMS Revenue Management and Pricing Section Practice Award; and 2009 INFORMS Revenue Management and Pricing Section Prize.

He was the founder of LogicTools which provided software solutions and professional services for supply chain optimization. LogicTools became part of IBM in 2009. In 2012 he co-founded OPS Rules, an operations analytics consulting company. The company became part of Accenture in 2016. In 2014, he co-founded Opalytics, a cloud analytics platform company focusing on operations and supply chain decisions. The company became part of the Accenture Applied Intelligence in 2018.

In 2020, Professor Simchi-Levi developed a practical supply chain digitization strategy that includes three important components: a unified, single, view of demand; supply chain segmentation; and smart planning and execution, all of which are powered by Digitization, Analytics and Automation. This strategy was implemented in a variety of industries including fashion retail, Consumer Packaged Goods manufacturers and high-tech.
For many companies, the COVID-19 pandemic has accelerated digitization and digital transformation efforts. Empowered teams typically led the way forward, rapidly sensing and responding to changes in their environment. In this talk Nick will present MIT CISR research on how companies can sustain this momentum, with guardrails that support an environment of empowered decision-making.

5:30 PM Networking Reception

Day 2: Thursday, September 23

8:55 AM Welcome Remarks
In this talk we will address the six stages of data pipeline maturity. Most companies today are between stage zero and one, with some batch query ability that is unreliable and probably takes too long. The best companies like AirBnB and Google have near real-time abilities to leverage data. We’ll talk about the different kinds of data stores, data lakes, data warehouses, data brokers with names such as Iceberg, Glacier, Snowflake, Cosmos, BigQuery, Synapse, Redshift, Firebase. We’ll look at data at rest and streaming data on the move, data in your systems, data in the Cloud and data that you’ve backed-up for that rainy-day when hackers encrypt everything. What functionality do we need and what products should we bet on. As Jeff Lawson, the CEO of $65 billion Twilio said, “Ask your developers why you need us”. Today that question applies to many more products like Confluent’s Kafka, Debezium, AIrFlow, Cassandra etc. Most companies think they need data scientists who know machine learning without realizing that without, fast and stable data pipelines these will be “luxury employees”. We’ll talk about the relatively unknown but critical field of data engineering and why you might want to hire them.
Inventing and building technology organizations systematically From Deep Tech to Impact starting with what you already have

Luis Perez-Breva
MIT Faculty Director of Innovation Teams Enterprise (MIT Engineering and MIT Sloan)
Innovator, Educator, Author, AI Problem Solver
Rafael del Pino Chair

Luis Perez-Breva, PhD (http://linkedin.com/in/lpbreva) is an innovator, entrepreneur, educator and the author of Innovating: A Doer’s Manifesto (The MIT Press, 2017). He is an expert in technology innovation, venture labs, taking deep tech to impact, and applying artificial intelligence to solve real-world problems. He has enjoyed success with inventions and new companies in security, telecom, fintech, and genetics to name some. Chiefly among them is the AI-based system to locate 911 calls in case of emergency deployed worldwide. His work has been featured by the Wall Street Journal, Bloomberg News, BBC, Wharton Business Radio, Entrepreneur, Zdnet, Quartz, Epsilon Theory and several other national and international media.

Currently, Luis is the Faculty Director of Innovation Teams (iTeams http://iteams.mit.edu), MIT’s flagship joint enterprise between MIT Engineering and MIT Sloan to put the Institute’s deep tech advances to work to solve real-world problems. Through iTeams, he has helped nearly 200 MIT technologies find a path to impact leading to the formation of some 40 new, enduring deep tech companies across all industries from mining to telecommunications.

Luis has worked with venture capital and numerous corporations and adapted his work to develop innovating factories. Currently, Luis is developing a technology repurposing fund to rescue, recycle, and, in essence, turn around technologies analogous to how private equity seeks to turn around companies.

Dr. Perez-Breva holds a PhD in artificial intelligence from MIT and degrees in chemical engineering, physics, and business from leading universities in Spain (Institut Quimic de Sarrià), France (Ecole Normale Supérieure), and the United States (MIT). In 2011, the Spanish government recognized his career achievements by awarding him the Order of Civil Merit of the Kingdom of Spain.

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Contrary to popular belief, building a robust technology organization doesn’t hinge on having a good (exponential?) idea but on surviving all your bad ones – systematically.

Most would rally behind the belief that technology ought to change the world for the better—solve problems that matter! Innovation! That is all fine and well except that the last two decades of innovation methods don’t explain how to do any of that. And yet, using technology to level the playing field, doing good and doing well, and learning to invent and innovate with what you have are the kind of superpowers many hope for when the word innovation is invoked.

I’ve spent the last two decades wrestling with the question of how to do innovation, not just how it happens, or how it threatens what you do, but what it means and how do you do it. Along this time I’ve shepherded over 200 technologies from MIT (Deep tech!) to impact; educated thousands at MIT and worldwide across all disciplines from policy to business and engineering on how to innovate; helped translate research into societal meaning; built factories of innovation in industry and venture capital where we systematically invent and create new organizations; and have built technology companies myself using artificial intelligence to derive new uses from existing large scale infrastructures.

I’d very much like to engage you in a conversation about what about innovation, if anything, may be useful to you as we start the post-pandemic reconstruction—we’ve had enough disruption already. I’ll draw from my experience at MIT and building innovation factories to discuss how to innovate efficiently with technology; that is, how to conceive diversified technology organizations, how to meaningfully de-risk them, and what it takes to scale up a robust organization. To make the conversation lively, I’d like to ask you to entertain three ideas that I believe should be straightforward but that the way we went about innovation before the pandemic has made look contrarian:

1. The organizations that survive are the ones that fail to fail. Failing fast does not prepare you for that.
2. Spending little by little is a tried and tested method to waste money without noticing. So-called lean startup methods contribute innovation waste.
3. You can set up a process to test tens of ideas for the capital it would take you to fail predictably at one, and in so doing make doing well and doing good affordable.

You can set up a process to test tens of ideas for the capital it would take you to fail predictably at one, and in so doing make doing well and doing good affordable.

View on LinkedIn
10:30 AM  Networking Break

11:00 AM  eCommerce Retailing and the Omnichannel Revolution
Eva Ponce
Executive Director, MITx MicroMasters in Supply Chain Management
Director, Omnichannel Distribution Strategies

Dr. Eva Ponce is the Director of the research area on Omnichannel Distribution Strategies at the MIT Center for Transportation & Logistics, as Research Scientist. Her current research focus is the design of omnichannel distribution strategies that integrates online and offline channels. Her main focus is to help retailers, and manufacturers to understand how e-commerce growth and mobile devices are affecting and transforming their supply chains. She also leads research initiatives on Circular Supply Chains, Reverse Logistics and Closed-Loop Supply Chains.

Dr. Ponce is the Executive Director of the MITx MicroMasters Program in Supply Chain Management. She leads the MicroMasters in SCM team and oversees the five-massive online MITx courses in Supply Chain Management (CTL.SCx courses) plus the Comprehensive Final Exam (CTL.CFx) that make up the MicroMasters Program. The courses are attended by tens of thousands of students in open enrollment from more than 190 countries.

Currently, Dr. Ponce is leading an innovative research line in Omnichannel Education at MIT, which is transforming supply chain management education around the world. Dr. Ponce and her team received in 2018 the Irwin Sizer Award for the 'Most Significant Improvement to MIT Education'. Dr. Ponce has over nineteen years of experience in teaching and research in supply chain management and quantitative models for industrial engineering. She teaches courses in Sustainable Supply Chains, Digital Supply Chains and Supply Chain Management at Master, PhD and Executive Education level. She is also a member of the Advisory Board of the Management Program at Harvard Extension School. In 2008, she received her tenure as an Associate Professor in Supply Chain Management and Logistics at the School of Industrial Engineering of the Technical University of Madrid (UPM).

Dr. Ponce received her PhD in Industrial Engineering from Carlos III University of Madrid in 2002. Her dissertation received two awards with special distinction. In 2000, she was granted with a pre-doctoral research stay in the Hass School of Business, University of California, and in 2011, she was a visiting professor at MIT CTL. She joined MIT CTL in 2016. She has an active publication record, including journal papers, conference proceedings and refereed abstracts.

The rapid growth of mobile technology and e-commerce has dramatically changed retail behaviors and the needs of the supply chains that support these behaviors. Almost 70% of all shopping events start online with customers exploring options in their personal devices. The COVID-19 pandemic has accelerated even more this trend. In this talk we will identify the main challenges in omnichannel and how the growth of ecommerce is transforming the supply chains.
Zeynep Ton is a Professor of the Practice at the MIT Sloan School of Management.

Zeynep's research focuses on how organizations can design and manage their operations in a way that satisfies employees, customers, and investors simultaneously. Her work has been published in a variety of journals, including *Organization Science, Production and Operations Management*, and the *Harvard Business Review*.

In 2014, Zeynep published her findings in a book, *The Good Jobs Strategy: How the Smartest Companies Invest in Employees to Lower Costs and Boost Profits*. The book draws on 15 years of research to show that the key to offering good jobs to employees, great service to customers, and superior returns to investors is combining investment in employees with specific operational choices that increase employees’ productivity, contribution, and motivation.

After her book was released, company executives started reaching out to Zeynep to understand how to implement the Good Jobs Strategy in their organizations, or to describe how they were already adopting the strategy. Zeynep cofounded the nonprofit Good Jobs Institute to help them transform through assessments, workshops, and longer term partnerships.

Prior to MIT Sloan, Zeynep spent seven years at Harvard Business School. She has received several awards for teaching excellence both at HBS and MIT Sloan.

Zeynep lives in Cambridge, Massachusetts with her husband and four children. A native of Turkey, she first came to the US on a volleyball scholarship from the Pennsylvania State University. She received her BS in industrial and manufacturing engineering there and her DBA from the Harvard Business School.

[View full bio]