Alex "Sandy" Pentland directs MIT's Connection Science initiative and the MIT Media Lab Entrepreneurship Program and is a founding member of advisory boards for the World Economic Forum, AT&T, Telefonica, United Nations, and Nissan. He previously helped create and direct MIT’s Media Laboratory, the Media Lab Asia laboratories at the Indian Institutes of Technology, and Strong Hospital’s Center for Future Health.

Forbes magazine declared Pentland “one of the seven most powerful data scientists in the world,” along with the founders of Google and the CTO of the United States. Pentland is among the most-cited computational scientists in the world, and a pioneer in big data analytics, computational social science, organizational engineering, and wearable computing. His research has been featured in Nature, Science, the World Economic Forum, and Harvard Business Review, as well as being the focus of TV features including “Nova” and “Scientific American Frontiers.” His most recent books are Social Physics, and Trust :: Data.

Interesting experiences include winning the DARPA 40th Anniversary of the Internet Grand Challenge, dining with British Royalty and the President of India, staging fashion shows in Paris, Tokyo, and New York, and developing a method for counting beavers from space.

The pandemic has laid bare many weaknesses in our national and global systems, especially around having timely data and data sharing, having AI that pulls out trends before they get large, and the need for greater levels of trust, reliability, and auditability. Drawing on discussions with National and Industry leaders from around the world, Sandy will discuss how leaders are evolving ways of addressing these problems, the policy changes that will affect businesses, and the technology being deployed that will support a new, more resilient, sustainable, and inclusive economy.
Dr John R Williams is Professor of Information Engineering and an expert in large-scale computation, cyber security and cloud computing. He has published over 200 papers and 2 books. He served as Director of the MIT AutoID Laboratory, where the Internet of Things was invented. In cyber-physical security, he has done impact analysis of large-scale cyber-attacks and with Lincoln Laboratories designed a Cyber Range for the Department of Defense. More recently he is using machine learning to addressing financial fraud for a $50 billion state enterprise. His research on parallel cloud computing has resulted in the breaking of the so called “Latency Barrier” in transmitting data across machines, which allows super-fast solution of physics equations. He teaches courses in Engineering Computation and Data Science and in Blockchain.

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Abel Sanchez
Director, Geospatial Data Center (GDC)
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Director, Geospatial Data Center (GDC)

Dr. Abel Sanchez holds a Ph.D. from the Massachusetts Institute of Technology (MIT). He is the Executive Director of MIT’s Geospatial Data Center, architect of “The Internet of Things” global network, and architect of data analytics platforms for SAP, Ford, Johnson & Johnson, Accenture, Shell, Exxon Mobil, and Altria. In cyber security, Dr. Sanchez architected impact analysis of large-scale cyber attacks designing Cyber Ranges for the Department of Defense (DOD). In password security, Dr. Sanchez led the design of a password firewall (negative authentication) for the Intelligence Advanced Research Projects Activity (IARPA) agency. In machine learning, addressing fraud detection, Dr. Sanchez designed a situational awareness framework that exploits different perspectives of the same data and assigns risk scores to entities for Accenture. He led the design of a global data infrastructure simulator, modeling follow-the-sun engineering, to evaluate the impact of competing architectures on the performance, availability and reliability of the system for Ford Motor Company. He has been involved in developing E-Educational software for Microsoft via their I- Campus Program and with establishing the Accenture Technology Academy, an online resource for over 200,000 employees. He has 10 years of experience with learning management systems and has made deployments in America, Asia, and Europe. He teaches MIT courses on cybersecurity, engineering computation, and data science and has produced over 150 educational videos.

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We are going through a forced digital transformation. Almost every company, even those running factories and supply chains, have large swaths knowledge workers who can work from home. These knowledge pipelines are being systematized and automated to produce better and more consistent results in faster times. In software, the DevOps or DevSecOps pipelines are thousands of times faster and more productive in the top performers. Its clear that 100 year old organizational structures and management strategies are now the bottlenecks slowing down value creation. Some believe Agile is the solution but is it?

Abel and John will discuss the lessons learned in the software industry and how they can be applied to drive digital transformation in other areas.

1. Digital Transformation Strategies – From Data First to Cloud
2. Cybersecurity for Leaders & Executives
3. Panel Discussion: Corporate Agility & Situational Awareness - Abel Sanchez and John Williams
Wilson graduated from UC Berkeley engineering school in 1979 and joined Defond. Within 2 years Defond was the first switch maker in Hong Kong to obtain UL approval and quickly became the top supplier for that market. Today, Defond is the biggest global supplier of switches for the power tools sector. During the early ‘90s Defond started involvement in electronics and was the top supplier of Appliance Leakage Circuit Interrupters for the US market. With a combination of expertise on mechanical, electronics and firmware, Defond

Peter Weckesser
Chief Digital Officer, Schneider Electric

Peter Weckesser is the Chief Digital Officer of Schneider Electric and a Member of the Executive Committee since June 2020, when he joined the company.

Prior to working at Schneider, Peter served as the Digital Transformation Officer of Airbus’ Defense & Space division since 2017. Before joining Airbus, Peter had extensive experience as a Senior Executive at Siemens, most recently as the Chief Operating Officer of Siemens’ Product Lifecycle Management, leading the IoT and Digital Enterprise business and activities. He also held other executive-level positions with Siemens such as the CEO of Industry Services and CEO of Value Services.

Peter’s career began at Siemens where he worked in various roles in product management and development, including Director of Business Development in the United States. He holds a degree in physics as well as a PhD in Computer Science from the University of Karlsruhe, Germany. He currently resides in Germany.

Kalev Ruberg
VP Future & Chief Innovation Officer, Teck Resources Limited

Kalev Ruberg has been active in the information systems arena for over 40 years. As a BSc and Masters graduate from MIT, his studies included work at the Architecture Machine Lab (now the Media Lab) before carrying out digital simulation research at the National Bureau of...