MIT Industrial Liaison Program Faculty Knowledgebase Report

Deep Learning vs. Profound Wisdom

September 11, 2020 11:00 am - 12:30 pm

11:00am - 12:00pm	Deep Learning vs. Profound Wisdom – Why System Thinking Supercedes AI and ML in Your Organization 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 of System Dynamics at the MIT Sloan School of Management. Carrier instructs senior managers on improving manufacturing and business processes and serves as an on-site coach in support of projects. His research focuses on strategic marketing and new business development in high technology, specialty chemicals, and service segments. Carrier has more than 15 years of experience in a variety of corporate, entrepreneurial, and consulting environments. Since 2006, he has worked with Arsenal Capital Partners as director of Six Sigma, where he is responsible for increasing portfolio company valuation by adapting and applying Six Sigma techniques to midsize companies. Carrier also handles due diligence, post-merger integrations, and financial analysis and improvement. Prior to joining Arsenal Capital Partners, he was employed by Grace Construction Products; Bain & Company, Inc.; and SuperCool LLC. Carrier holds a BS in chemical engineering from the University of Michigan, a PhD in chemical engineering from MIT, and an MBA from Harvard Business School. View full bio While the current wave of "Deep Learning" business applications is showing some success, the upside of this approach is limited by the fact that it is heavily reliant on data, and ignores the fundamental principles of System Dynamics, Lean Operations, and Agile Management – a concept captured in W. Edward Deming's phrase, "Profound Wisdom". In this talk, we will explore how an understanding of the fundamental principles underlying successful organizations is critical to achieving transformational results from implementing the new technologies of Industry 4.0, including Machine Learning and Artificial Intelligence. We will also examine successful ML examples from Google and Stanford Medical School and show that these applications are based on classic Lean and Operational Improvement tools. We will also look at large scale failed applications due to a naïve reliance on "black boxes" led to predictably poor results. This session is a must for anyone looking to apply ML to drive performance improvement and risk reduction in complex, human-driven organizations.
12:00pm - 1:00pm	Startups 1. GenOne (https://genone.tech) 2. IIOT OXYS (http://www.oxyscorp.com)