EPSTEIN INSTITUTE SEMINAR ▪ ISE 651

Statistical Learning in Operations Management

ABSTRACT - Traditionally, statistical learning is focused on either (i) online learning where data is generated online according to some unknown model; or (ii) offline learning where the entire data is available at the beginning of the process. In this talk we show that combining both approaches can accelerate learning. Specifically, we show that difficult online learning problems can be reduced to well-understood offline regression problems. We demonstrate the impact of our work in the context of product recommendation, multiclass classification problems, personalized medicine and dynamic pricing.

Dr. David Simchi-Levi
Professor
Civil and Environmental Engineering, MIT;
Director, MIT Data Science Lab

SPEAKER BIO – 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. His Ph.D. students have accepted faculty positions in leading academic institutes including U. of California Berkeley, Carnegie Mellon U., Columbia U., Duke U., Georgia Tech, Harvard U., U. of Illinois Urbana-Champaign, U. of Michigan, Purdue U. and Virginia Tech. 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.

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TUESDAY, SEPTEMBER 28, 2021
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