MIT Industrial Liaison Program Faculty Knowledgebase Report

Digital Transformation #2 of 6

April 27, 2020 11:00 am - 1:00 pm

11:00am - 12:00pm

The Digital Challenge: How to Transform Your Business in the Midst of a Crisis
Jeanne W. Ross

Principal Research Scientist
Director, Center for Information Systems Research
MIT Center for Information Systems Research

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Jeanne Ross is a recognized expert in enterprise architecture. Her book, Enterprise Architecture as Strategy (2006), was recently named by Forbes magazine as one of 13 must-read books for technology executives. Jeanne's current research focuses on how established companies will transform themselves for success for the digital economy. She has helped bring architecture into senior management strategy discussions at companies like Aetna, China Mobile, Commonwealth Bank of Australia, CEMEX, Schneider Electric, and PepsiCo. Jeanne has published in major practitioner and academic journals, including The Wall Street Journal, MIT Sloan Management Review, and Harvard Business Review. She is currently writing her fourth book, a follow up to her 2006 book, which will examine architectural requirements for digital companies.

For almost twenty years, digital technologies like social, mobile, AI, cloud, internet of things (SMACIT) have been changing what businesses can do for their customers. But digital transformations of established companies have proceeded in fits and starts. As social distancing forces companies to become more digital, leaders can seize opportunities to radically rethink how they serve customers and apply the skills and creativity of their people. It's not easy—or fast! In this webinar, we will share findings from five years of research on digital transformations, highlighting five building blocks that are essential to sustained business success.

12:00pm - 1:00pm

How synthetic data can help you transform your digital operations?

Kalyan Veeramachaneni

Principal Research Scientist
MIT Laboratory for Information and Decision Systems

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Kalyan is a principal research scientist in the Laboratory for Information and Decision Systems (LIDS, MIT). Previously he was a research scientist at CSAIL (CSAIL, MIT). His primary research interests are in machine learning and building large scale statistical models that enable discovery from large amounts of data. His research is at the intersection of big data, machine learning, and data science. He directs a research group called Data to AI in the new MIT Institute for Data Systems and Society (IDSS). The group is interested in big data science and machine learning, and is focused on how to solve foundational issues preventing artificial intelligence and machine learning solutions from reaching their full potential for societal applications.

When my entire team transitioned to working from home for the first time, we were able to figure out most things — like how to hold virtual meetings and get people the technical resources they needed — fairly quickly. But one thing was more difficult: maintaining access to data. For privacy reasons, much of the data we use lives in a secure machine. We can’t put it on the cloud or distribute it publicly. What happens if this machine crashes, and we’re not on campus to fix it? Although this particular situation is unique, it highlights something we’ve been thinking about for years: the importance of synthetic data. Synthetic data is generated from a statistical model in such a way as to emulate important properties of the real data. Over the past 5 years, our group has been working on creating synthetic data generators. In this webinar, we will present our current progress in this regard, explore some use cases in which synthetic data is helpful, and explain how you can use synthetic data to scale your digital operations.