

## **INTEGRATING ARTIFICIAL INTELLIGENCE WITH ANYLOGIC SIMULATION**

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### **ABSTRACT**

Simulation is one of five key technologies that PwC's Artificial Intelligence Accelerator lab uses to build Artificial Intelligence (AI) applications. Application of AI is accelerating rapidly, spawning new sectors, and resulting in unprecedented reach, power, and influence. Simulation explicitly captures the behavior of agents and processes that can either be described by or replaced by AI components. AI components can be embedded into a simulation to provide learning or adaptive behavior. And, simulation can be used to evaluate the impact of introducing AI into a "real world system" such as supply chains or production processes. In this workshop we will demonstrate an Agent-Based Model with Reinforcement Learning for Autonomous Fleet Coordination; demonstrate and describe in detail a version of the AnyLogic Consumer Market Model that has been modified to include adaptive dynamics based on deep learning; and describe approaches to integrating machine learning to the design and development of simulations.