1163-00-704   **Steve Sashihara*** (`ssashihara@princeton.com`), 2 Research Way, Princeton, NJ 08540. *The Princeton 20: the Most Common Risk Factors in Implementing Optimization/AI into Production (Spoiler alert: It is usually not the Math).*

Princeton Consultants has over 40 years worked with innovators in many industries to improve their decision-making using advanced analytics. What has historically been called expert systems, decision support, and operations research is today often simply called Artificial Intelligence (AI). During this time, the core techniques have vastly expanded–from bases in statistics, simulation, and mathematical optimization–to include machine learning and new classes of hybrid algorithms. These advances have been multiplied by improvements in supporting hardware.

We have found consistent and repeatable factors that govern whether a given analytics project will make it into successful production. These factors also apply to the latest AI projects. We developed the "Princeton 20" – a list of 10 environmental and 10 technical risk factors to help anticipate issues and increase the likelihood of a successful transition from promising research to production deployment and wide usage. Princeton Consultants CEO Steve Sashihara will discuss these risk factors, and tips and techniques to successfully deploy solutions. (Received September 11, 2020)