Dr. Deming was one of the foundational leaders in industrial statistics, with contributions to experimental design, sampling, and process control. More importantly, he changed the culture of business leadership in two nations, and implicitly, around the world. But the industries of his day focused on manufacturing, while today's industries reflect the knowledge economy. This talk asks the industrial statistics community to consider how to update and apply Dr. Deming's ideas in the Big Data era. There are some very direct correspondences.