12 MANAGEMENT OF AI PROJECTS

PJD's Opening Remarks

We have seen in previous lectures that AI systems can be quite complex mixtures of traditional components and machine-learning components.

These systems were obviously built by sophisticated teams and, when they are deployed, they had to conform with many federal requirements for acquisition. What are the considerations for assembling production teams? How has this been done traditionally. What is new about the development of AI systems that requires adaptation of the process? Project management is essential for bringing AI systems into adoption.

For traditional software projects, the government has relied heavily on the "waterfall model" – requirements, specifications, prototypes, full development, and testing. These stages are relatively stable because the requirements of the software are usually relatively stable. But when the project is to build a system around AI software, the situation changes dramatically because of the central role of data in these systems. All the stages can change when the data change – which they do because new data are constantly arriving.

Because of the constant change along the project timeline, it is essential to have a strong team whose expertise covers all the domains that come together in the software. The team needs people with strong AI skills for the AI components of the project. It also needs people skilled in the application domain so that the system will be useful. It is a myth that AI project teams require strong managers but not strong AI team members. The necessary diversity of expertise on the team is itself a management challenge.

Today Professor Rene Rendon of the Graduate School of Defense Management will discuss the management of AI software projects. He has a long history of experience with business administration and project management in industry and government, and as director of contracts for Air Force commands. You will find his account to be eye-opening and tremendously useful.