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Proposed Presentation: Issue of Terminology in Digital Engineering

Abstract:

Digital engineering, while not a direct substitute for ground-based testing and field-testing of actual physical systems, can have immense value to T&E, in particular in discovering flaws in systems before pushing them to ground-based and field testing, and troubleshooting issues discovered during testing before testing again. This can benefit T&E immensely, if done well, by minimizing DT and OT field testing discovery, and overcoming pernicious test-fix-test cycles. However, digital engineering practice in the DoD today is beset with challenges arising from imprecise use of terminology, misapplication of terminology, failure to adhere to common, standardized definitions for terminology, and, sometimes, a lack of common understandings of the underlying concepts. These types of problems give rise to avoidable confusion across the digital engineering communities and in the minds of DoD decision makers, impeding the efficacy of digital engineering practices. One of many examples is the lack of a common definition of the term “digital twin,” and in fact a lack of a common understanding of what the term *should* mean. This talk will discuss this case and similar problems, and offer recommendations for overcoming them.