

PROGRESS, PRAGMATICS, FOUNDATIONS: WHAT THE RESILIENCE ENGINEERING COMMUNITY CONTRIBUTES, WHAT THE RESILIENCE ENGINEERING COMMUNITY CAN DO, WHAT THE RESILIENCE ENGINEERING COMMUNITY HAS DISCOVERED

David Woods
Ohio State University, USA

Abstract

Among the widespread misuse of the label resilience in technical, governmental and industry organizations, the Resilience Engineering Community stands out because it has and continues to make a unique contribution by studying how human systems adapt, finding empirical patterns and regularities. As a result, the Resilience Engineering Community continues to develop a novel pragmatics for interventions to build adaptive capacities in organizations changing in complex worlds (admittedly, more slowly than anticipated). The Pragmatics of Resilience Engineering centers on continuous and guided adaptability, which is exemplified in truly proactive safety and in critical digital services. The Pragmatics do not look like the steps organizations can adopt when they make linear simplification assumptions, or conflict with practices derived from linear simplifications and thus there is push back. However, the linear assumptions are over-simplifications and do not work in increasingly complex worlds operating at new scales and tempos. It is not that the Pragmatics of Resilience Engineering are not doable in practice, rather it is that they represent a radical departure from traditional practices. By studying adaptation and complexity in real settings (the only place where the phenomena occur), the Resilience Engineering Community has discovered surprising new fundamentals about how all adaptive systems work — fundamentals that overturn assumptions made by many disciplinary areas of study and reframe findings and techniques. The adaptive universe has basic rules (though they are not what most areas thought the rules could be) and these rules drive empirical work to find patterns/regularities and drive the elaboration of the Pragmatics to build/sustain adaptive capacities in organizations.