SYSTEMIC CONTRIBUTORS ROUNDTABLE - (RE)INTRODUCING METHODS AND MODELS TO FIGHT THE TYRANNY OF ROOT CAUSE ANALYSES

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Abstract

Even though Root Cause Analyses (RCA's) and other linear, causal methods provide narrow and distorted models of the systems they represent (Leveson, 2004; Woods & Branlat, 2010; Lundberg et al, 2008), they are still the de facto methods used for accident and incident investigations around the world. Why are alternative methods that connect to the fundamental principles of Resilience Engineering (RE) not more widely used? Arguably, these tools are not used by practitioners because the energy required to locate, vet, tailor and implement them is outsized relative to the perceived value that they will provide. We propose a session meant to mitigate many of these issues: a roundtable that introduces, or reintroduces, the current collection of systems-centered analysis and diagramming tools. Pedro Ferreira will discuss his experience using the Functional Resonance Analysis Method (Hollnagel, 2014), Beth Lay will describe her experience using the Resilience Analysis Grid (RAG) and other systemic analysis methods. John Allspaw will discuss the amalgam of methods he created for Etsy and continues to refine. David Provan will discuss methods that he has devised to support his work with several organizations. Mike Rayo will discuss a new systemic analysis method, Systemic Contributors and Adaptation Diagramming (SCAD). The roundtable will be conducted in a Fishbowl format, which will aggressively encourage members of the audience to join the round table and share their experiences with systemic analysis methods and models.

Among other topics, we will cover how these methods and model reflect and reveal system properties including, but not limited to:

- Interdependencies

- Adaptations

- Systemic pressures (including economic and workload pressures)

- Conflicts

- Individual behaviors as symptoms of systemic contributors

The roundtable should also include how each method overcomes common issues with adopting systemic analysis method, including:

- Difficulties in demonstrating the tool's value

- Difficulties in communicating findings and results

- The complexity of the resultant diagrams

It is our hope that bringing together experts on these tools and communicating their relative strengths and weakness will be valuable for the REA community and will provide tangible takeaways as they return to their home organizations.

References:

Hollnagel, E. (2014). FRAM: The Functional Resonance Analysis Method, 1–211.

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