

Autopoietic Socio-technical Systems: A New Lens for Understanding Anticipation

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Abstract : The capacity to anticipate future events across varying time scales is integral to the effective operation of both emergency management and emergency services organizations. This paper provides fresh insight into anticipation by first offering a novel conceptualization of organizations in both fields by twisting together socio-technical systems and autopoietic theory. The result of this intertwining of theory is a view of emergency management and emergency services organizations as self-reproducing systems driven by socio-technical processes contingent upon both inflows and outflows across a boundary produced by the system's own activity. Flowing from this perspective is an approach to anticipation that extends from a system's intent of continuing to reproduce its identity over a dynamic landscape. This discussion takes a pragmatic turn through Maturana and Verden-Zöller's domains of structural change, classifying anticipated events and connecting them with types of responses involving inflows, outflows, and socio-technical processes.

Keywords : risk, anticipation, organizations, planning, transformation, identity

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