

Soft Systems Methodology as a Catalyst for Organizational Transformation

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Abstract: As human understanding of reality has evolved, we have come to recognize that such reality can be viewed as an integrated network of systems. This network encompasses a hierarchy of systems, subsystems and elements that extends from the cosmos to constituents, such as quarks, gluons, electrons, neutrinos and the forces that join things together, such as electromagnetism – thus, we can apprehend reality as an integrated system made up of discrete components.

While we have learned that the physical world can be characterized in systems terms, so can the cognitive world. To this extent, the cognitive world can be viewed to have as much or more influence on human behavior than the physical world. Much like the complexity associated with the weather, human behavior within a business environment takes on a level of complexity that is, at the moment, impossible to precisely predict. Consequently, in a quantitative sense, research suggests that probabilistic models are beneficial, but even here they tend to only be applicable in short time intervals and under prescribed conditions. Thus, in a business environment, what we need is a sufficient apparatus by which Industrial and Systems Engineers (ISE) can model a cognitive system within a business context and apply the principles of scientific reasoning along with intervention in order to achieve transformation. Systems thinking and in particular, Soft Systems Methodology (SSM), guides the engineer to accomplish just this by addressing ill-structured, problematic situations in which the mental constructs of various stakeholders are leveraged to build a new shared system of meaning.

Keywords: Systems; systems thinking; networks business; business transformation; enterprise transformation; Industrial Engineering; Industrial and Systems Engineering; soft systems; soft systems methodology; action-research; action learning; systems modeling.