A Behavioral Theory of Insider-Threat Risks: A System Dynamics Approach

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The authors describe a behavioral theory of the dynamics of insider-threat risks. Drawing on data related to information technology security violations and on a case study created to explain the dynamics observed in that data, the authors constructed a system dynamics model of a theory of the development of insider-threat risks and conducted numerical simulations to explore the parameter and response spaces of the model. By examining several scenarios in which attention to events, increased judging capabilities, better information, and training activities are simulated, the authors theorize about why information technology security effectiveness changes over time.

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