Analytic Approaches to Insider Risk Quantification

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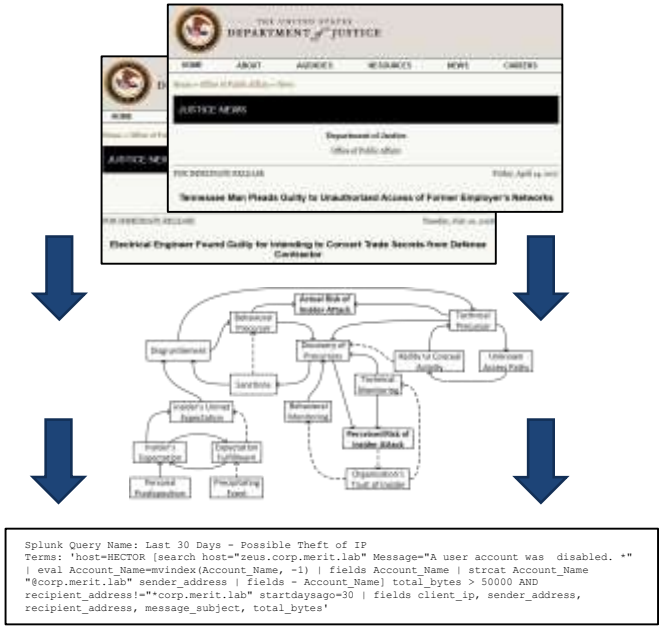
Document Markings

This material is based upon work funded and supported by the Department of Defense under Contract No. FA8702-15-D-0002 with Carnegie Mellon University for the operation of the Software Engineering Institute, a federally funded research and development center.

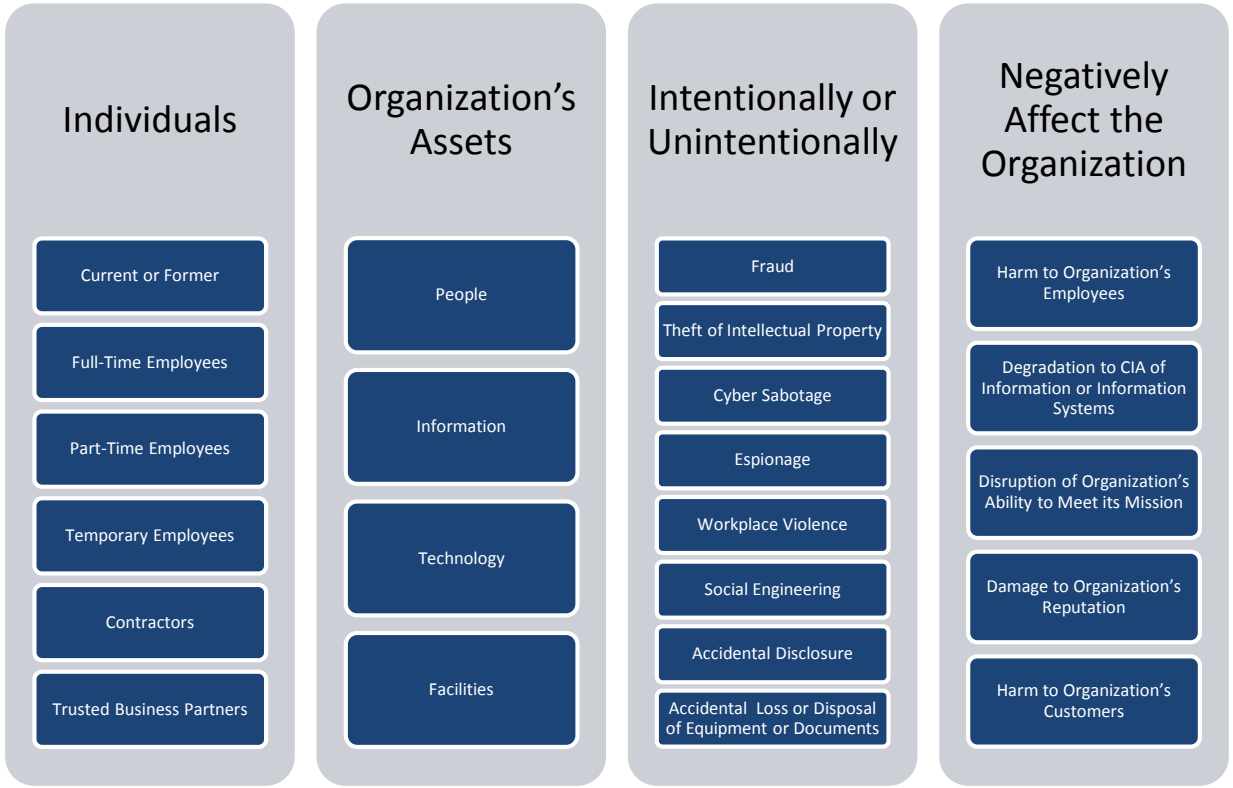
DM20-0828

The CERT National Insider Threat Center

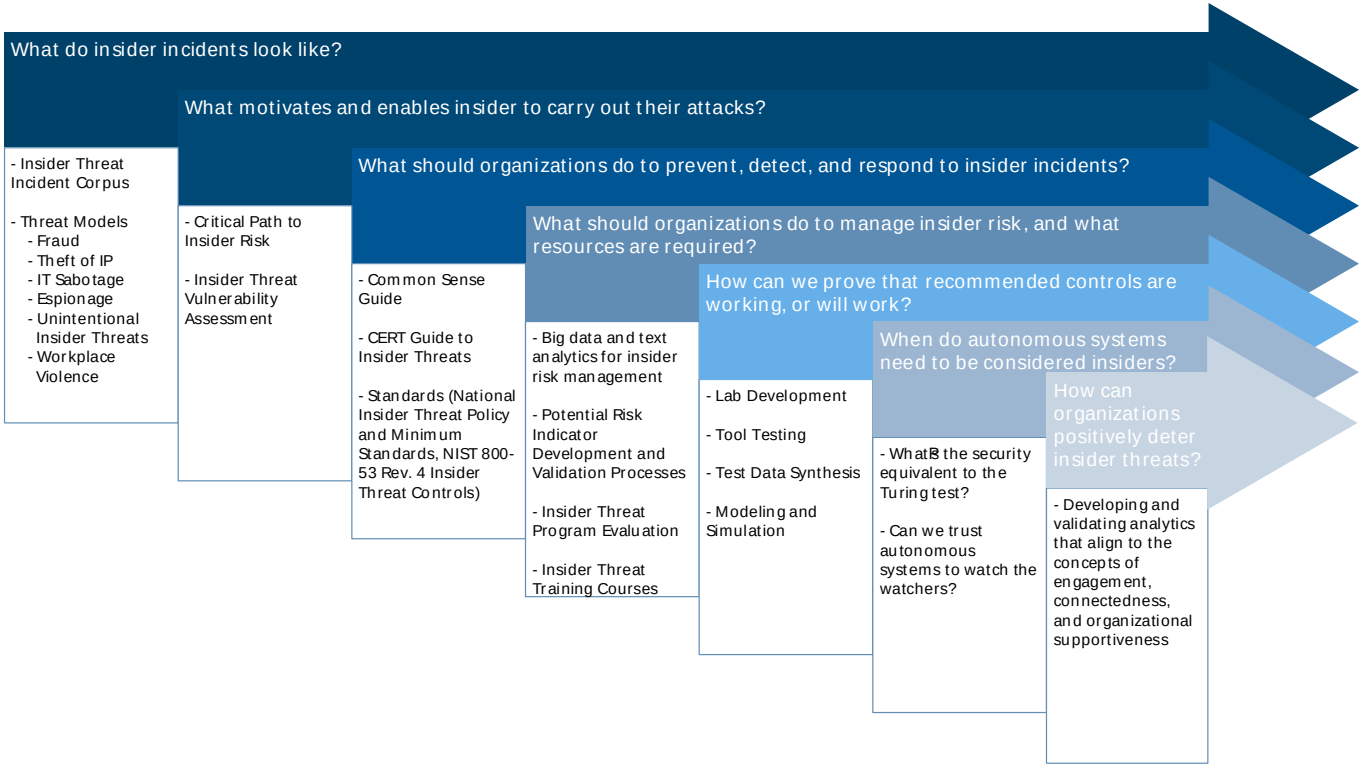


Conducting research, modeling, analysis, and outreach to develop socio-technical solutions to combat insider threats since 2001

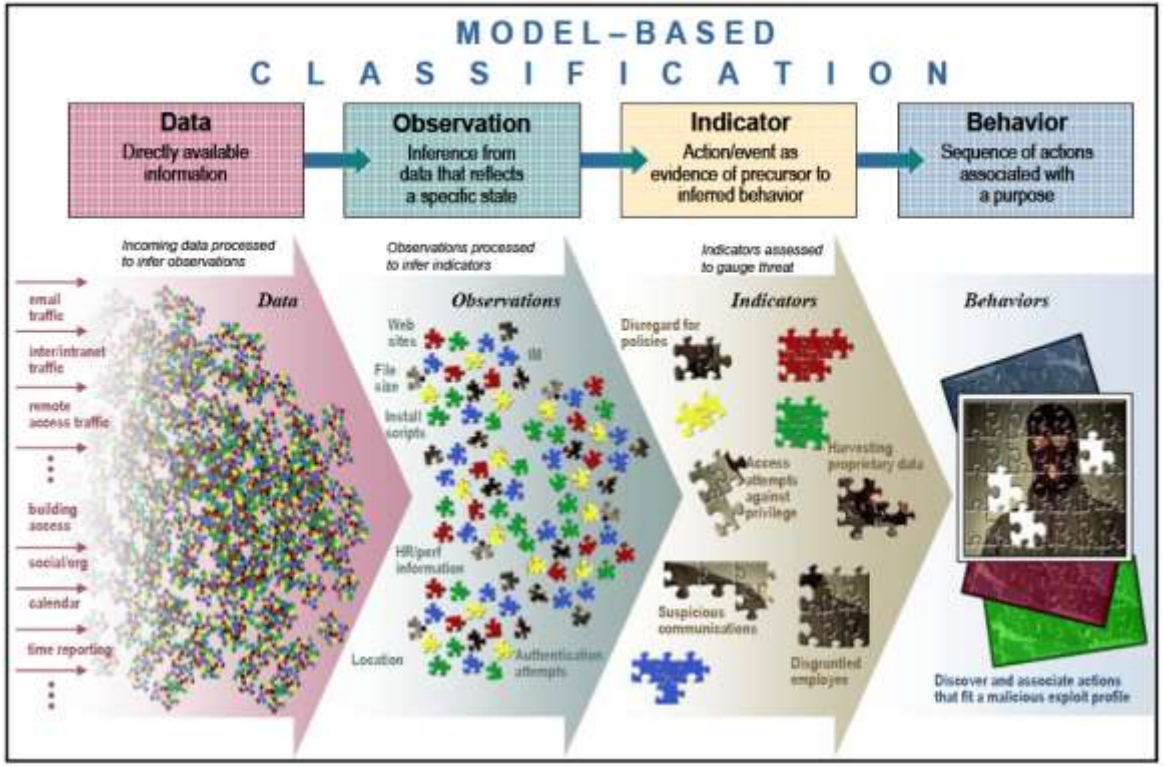
Scope of the Insider Threat



Past, Present, and Future Research



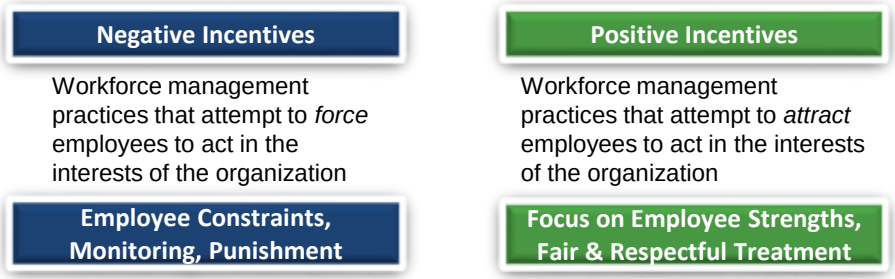
A Conceptual Model



Source: Greitzer, et al., “Predictive Modeling for Insider Threat Mitigation,” PNNL-SA-65204, April 2009.

A Balanced Approach to Insider Risk Management

Organizations typically focus their insider threat programs almost exclusively on negative incentives.



Negative incentives alone can exacerbate the threat they are intended to mitigate.*

Basic Tenet: Organizations should explicitly consider a mix of positive and negative incentives to build insider threat programs that are a net positive for employees and the organization.

* See “Effective Insider Threat Programs: Understanding and Avoiding Potential Pitfalls,” SEI Digital Library, March 2015.

Research Highlights

Common Sense Guide to Mitigating Insider Threats, 6th Edition

https://resources.sei.cmu.edu/library/asset-view.cfm?assetid=540644

Insider Risk Indicators Using Microsoft Telemetry

https://github.com/microsoft/Microsoft-threat-protection-Hunting-Queries

The Critical Role of Positive Incentives For Reducing Insider Risk

https://ieeexplore.ieee.org/abstract/document/8424655

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