Toward Cybersecurity Leadership Framework

Simon Cleveland, Ph.D.
Executive Director, Technology Institute
City University of Seattle
Overview

- Introduction
- Research question
- Cybersecurity vulnerabilities and leadership failure
- NIST Cybersecurity framework
- Leadership theory
- Proposed Cybersecurity leadership framework
Cybersecurity Vulnerabilities = Leadership Failure

• 2016 ICS-CERT vulnerabilities report
  • 2,300 vulnerabilities
  • 185 advisories
  • 17 alerts

• 2016-2017 Hacks
  • Equifax – 145 million people
  • Yahoo – 1 billion
  • WannaCry – 150 countries
  • Uber – 57 million accounts
NIST Cyber Security Framework
Leadership Theory

• Theory Y Leader
Leadership Theory

• Transformational/Inspirational Leader
Leadership Theory

- Servant Leader
Leadership Theory

• Authentic Leader
Leadership Theory

- Adaptive Leader
Proposed Cybersecurity Leadership Framework

APPLICABLE LEADERSHIP STYLES

**Identify**
- • Inspirational/Competence; Adaptive,
  Authentic, Theory Y, Servant,

**Protect**
- • Authentic, Inspirational/Transformational

**Detect**
- • Transformational/Competence, Adaptive,
  Resilient

**Respond**
- • Stacklberg equilibrium, Inspirational, Adaptive,
  Authentic, Resilient, Mentorship

**Recover**
- • Resilient, Adaptive, Authentic, Servant,
  Inspirational/Mentorship, Transitional
References


Avolio, B.J., and Bass, B.M. 2002. Developing potential across a full range of leadership cases on transactional and transformational leadership, Mahwah, NJ: Psychology Press.


