Promoting Information Security: From Thought to Action

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Theory of Planned Behavior

• Broad application to applied problems
  • Safety behavior (e.g., driving speed, seat belt use, condom use, health behavior, wearing safety gear, sun safety)
  • Information technology acceptance (e.g., e-commerce, 3G mobile services, instant messaging, podcasting, web-based learning, internet banking, social networking)
• “Counterproductive use of [work] computers” (Morris, 2007)
Theory of Planned Behavior

- Attitude Toward the Behavior
- Perceived Behavioral Control
- Subjective Norm
- Intention
- Behavior
Theory of Planned Behavior

- Attitude Toward the Behavior
- Perceived Behavioral Control
- Subjective Norm

Intention

Indication of readiness to perform the behavior. The immediate antecedent of the behavior.

Behavior
Theory of Planned Behavior

- **Attitude Toward the Behavior**: The degree to which the behavior is positively or negatively valued.
- **Perceived Behavioral Control**
- **Subjective Norm**
- **Intention**
- **Behavior**
Theory of Planned Behavior

- Attitude Towards the Behavior
- Perceived Behavioral Control
- Subjective Norm
- Perceived ability to perform the behavior. Essentially, self-efficacy.
- Intention
- Behavior
Theory of Planned Behavior

- Attitude Toward the Behavior
- Subjective Norm
- Perceived social pressure to engage or not to engage in the behavior.
- Intention
- Behavior
Organizational “Climate”

- Defined as:
  - “Policies, practices and procedures that are rewarded, supported and expected in an organization” (Dickson & Mitchelson, 2007, p. 545)

- **Shared** perceptions
- Relevant to a specific domain
  - Ethical climate
  - Service climate
  - Safety climate
  - Information Security climate (e.g., Chan et al., 2005; Herath & Rao, 2009)
Antecedents to Climate

• “Strong” situations
• Leadership
Strong Situations

• What do people do at a...
Strong Situations

- Certain characteristics of situations lead everyone to behave similarly
- If everyone behaves similarly due to the situation, dispositions (e.g., personality) will not drive behavior
- We do not want to have to rely solely on employee dispositions to drive their behavior!
  - Insider Threat (Greitzer et al., 2010; Pfleeger & Stolfo, 2009)
Strong Situations

• How do we create a Strong Situation?
• Information should be
  • Clear
  • Consistent
• Consequences vis-à-vis decisions and actions
  • Rewards work better than Punishments
Leadership

• Longstanding proposition that leaders create climate (Zohar, 2010)

• Empirical evidence—3 examples:
  • Safety climate (Fogarty & Shaw, 2010; Zohar, 1980)
    • Employees’ perceptions of management attitudes about safety
  • Climate for service (Schneider et al., 2002)
    • Branch manager’s behavior that supports and rewards the delivery of service
  • Information Security climate (Chan et al., 2005)
    • Customary information-security related actions of upper management as observed by the individual employee
Leadership

• So, **how** do leaders create climates?
  • ...or improve existing climates?
• A few strategies
  • Transformational Leadership *(Sosik, 2007)*
    • Articulating a vision and a plan to achieve it
    • Personally modeling high standards of conduct
  • **Signaling** *(Zohar, 1980)*
    • Status of cybersecurity committee and members
Thank You!