

# Information Security System Educators Must be Leaders

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# Purpose

- To highlight conference theme of “Changes, Challenges, and Collaborations: Effective Cybersecurity Training”
- To suggest that members of FISSEA need to become and be perceived as meaningful leaders

# Key “Changes”

- Everything is online
- Everything online can be hacked
- Cybersecurity is more important than ever

# Everything is Online

- Communication
- Finances
- Professional and Personal Information
- Internet Searches
- Safety and Utility
- Government and Private Company Information

# Everything is Online

- **Communication**

- Email
- Social Media
- Exchange of Videos

- **Finances**

- Banking
- Credit/Debit cards
- Investments
- Tax preparation



# Everything is Online

- Professional and Personal Information
  - Social media (Linked In, webpages, CVs, etc.)
- Internet Search Engines
  - Search engines



*CURRICULUM VITAE*

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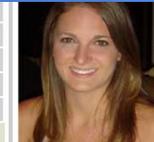
**EDUCATION**

**School and Location**  
Stanford University  
Palo Alto, Calif  
Columbia University  
New York, New York

**Additional Training**  
Columbia University, College of Physicians & Surgeons, New York, NY

**EMPLOYMENT**

2014-Present Director, Leadership Programs, School of Medicine, USUHS  
2014-Present Professor, Military & Emergency Medicine, School of Medicine, USUHS  
2012-Present Professor, Research, Graduate School of Nursing, USUHS



Erin Barry is a behavioral neuroscientist with a focus on human performance optimization for the Consortium on Health and Military Performance (CHAMP). Erin earned a B.E. (2006) in Biomedical Engineering with a minor in Mathematics from Vanderbilt University in Nashville, TN. She earned an M.S. (2008) in Biomedical Engineering from University of Texas at Arlington with a focus on Tissue Engineering and Drug Delivery. Prior to joining Dr. Grunberg's lab (2010), Erin worked at the Baylor Institute for Immunology Research in Dallas, TX, with Dr. Damien Chaussabel to identify biomarkers in B-cell deficient patients, Multiple Sclerosis patients, Rheumatoid Arthritis patients, lung cancer patients, and performance-enhancing drugs in Olympic marathon runners. She also has worked at the Center for BrainHealth in Dallas, TX, with Dr. Richard King, using fractal dimensions to diagnose Alzheimer's disease. Her research activities at USU have focused on animal models of brain injury, post-traumatic stress disorder (PTSD), and effects of improvised explosive devices on the body. Erin is currently collaborating on research projects investigating novel treatments for traumatic brain injury in animal models, contributions of nicotine and caffeine to the development of PTSD, and the role of canine exposure as part of rehabilitation of Wounded Warriors. She also is helping to determine optimal strategies to analyze complex behavioral and biological data. Erin can be contact at: erin.barry.ctr@usuhs.edu

# Everything is Online

- Government and Private Company Information





# Everything Online can be Hacked

- **Professional and Personal Information**
  - Misuse and abuse of others' ideas

- **Internet search**
  - Trojans, cookies



- **Safety and Security**
  - Terrorism concerns



# Everything Online can be Hacked

- Government and Private Company Information
  - WikiLeaks; patriotism vs. treason?



# Cybersecurity is More Important Than Ever

- Communication
- Finances
- Professional and Personal information
- Internet Searches
- Safety and Utility
- Government and Private Company Information

# Key “Challenges” for Cybersecurity Experts

- Maintaining your workplace satisfaction because your job is never done
- How to motivate users to follow cybersecurity practices because everyone thinks that they will not be hacked
- How to get users’ attention and respect taking consideration of how they view you
- **But how?**

# Key “Collaborations”

- With everyone on an individual basis
- With FISSEA colleagues
- As a respected leader in cybersecurity

# FISSEA Members as Leaders

*“You have to motivate an entire group of people to be proactive to protect our Federal IT network and all of the Federal Government information. Therefore, you all are leaders in your field.”*

Message for FISSEA members on March 18, 2015 from

**Marie O’Neill Sciarrone**

Special Assistant to President George W. Bush  
for Homeland Security and Senior Director for  
Cybersecurity and Information Sharing Policy

# Leadership

- Leadership is the enhancement of behaviors (actions), cognitions (thoughts and beliefs), and motivations (reasons for actions and thoughts) to achieve goals that benefit individuals and groups.

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# Historical perspective on leadership

- Homer's *Iliad*
  - Agamemnon, Ajax, Achilles, Odysseus
  - Compare and contrast
    - Individual differences
    - Long-term influence
  - Emphasis on
    - physical traits (e.g., height, attractive looks, fitting expected role)
    - personality traits (e.g., divine, moral, admired, charismatic); leader's knowledge, abilities, performance (cf military: Be, Know, Do)



# Types of leadership in historical context

- Kurt Lewin's three types of leadership (late 1930s):
  - Authoritarian
  - Laissez faire
  - Democratic
- Modern Developments:
  - Situational leadership
  - Group interaction and motivation
  - Group goals vs. performance focus
  - Tasks vs. relationship-oriented
  - Transactional vs. transformational vs. servant leadership
  - Authentic leadership
  - Importance of emotional intelligence



# Leadership in the 21<sup>st</sup> century

- Influence of social media?
- Influence of technology?
- Influence of shifting cultural norms?
- Current leadership challenges (e.g., generational differences [Baby boomers, Gen X, Gen Y]; diverse groups)?



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# 4 Cs of Leadership

- **Character**
- **Competencies**
- **Context**
- **Communication**

Callahan & Grunberg (2015)

# 4 Cs of Leadership

- **Character** – responsibility, integrity, high EQ, empathy
- **Competencies** – transcendent leadership skills, expertise determined by role and specialty
- **Context** – physical, psychological, social environment; situations; stress
- **Communication** – verbal and nonverbal; sending and receiving

**Your Ideas?**