

**Getting and Staying CyberSmart:**  
**Resources and Breaking CyberBread**

CyberCrime 2016 Symposium

*Cyber Convergence*

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# ABSTRACT

Understanding how to properly protect valuable information assets (in today's data-driven, interconnected global economy) very often involves working with multiple parties. **The Cybersecurity Canon**, a listing of vetted books, offers resources for context in this ecosystem. Given the exponential speed of change in cybersecurity, continuous learning is the only viable strategy for staying CyberSmart. Such learning can come from written resources but also must include active human collaboration, whether through conferences, professional associations, ISACs, ISAOs or threat-intelligence sharing mechanisms. This session will enable you to strategize about how to create the network and knowledge to stay ahead of the threat.

# Cyber Ecosystem

- “Cybersecurity is a Team Sport”
- “Collaboration is Key”
- “Need to Learn Each Other’s Language so Leadership Can Create a Culture of Cybersecurity Enabling Specific Desired Business Outcomes”

# Getting/Staying CyberSmart

- Basic Education
  - Traditional Degrees/Certifications/Career Experience
- Books/Other Written Resources
  - ***The Cybersecurity Canon***: Books Every Cybersecurity Professional Should Read  
<https://www.paloaltonetworks.com/threat-research/cybercanon>
- Continuous Learning
  - Courses
  - Conferences/Seminars
  - Thought Leaders
  - Professional Associations
  - ISACs/ISAOs/Threat Intelligence Sharing Mechanisms

# Getting/Staying CyberSmart

## *The Cybersecurity Canon*

- “. . . [L]ist of must-read books for all cybersecurity practitioners – be they from industry, government or academia -- where the content is timeless, genuinely represents an aspect of the community that is true and precise, reflects the highest quality and, if not read, will leave a hole in the cybersecurity professional’s education that will make the practitioner incomplete.”

# Getting/Staying CyberSmart

## *The Cybersecurity Canon*

- Committee Members write book reviews; members of the public may also do so
- Candidates are voted on once a year and “inducted” at annual *Ignite* Conference
  - 2016 Inductees include a variety of books
    - Shout-out to Marc Goodman’s *Future Crimes: Everything is Connected, Everyone Is Vulnerable and What We Can Do About It*
    - *Tallinn Manual*– one of the most important works on international cyber law
      - *Tallinn Manual 2.0* to Be Completed in 2016 (The Tallinn Manual process is funded, hosted and facilitated by the NATO Cooperative Cyber Defence Centre of Excellence in Tallinn, Estonia. Liis Vihul is Managing Editor and Michael Schmitt is Director of the Tallinn Manual project.)  
<https://ccdcoe.org/tallinn-manual-20-be-completed-2016.html>

# Getting CyberSmart

## Sample Resources

- Goal is to always have a diversity of perspectives with an overall world view
  - Traditional Cybersecurity, IT Security, Risk Management, Legal publications
  - Getting global context
    - *Foreign Policy* <http://foreignpolicy.com>, *The Financial Times*, <https://www.ft.com>, *The Economist* <http://www.economist.com>
  - Sample Think Tanks
    - Atlantic Council Cyber Statecraft Initiative <http://www.atlanticcouncil.org/programs/brent-scowcroft-center/cyber-statecraft>
    - CSIS <https://www.csis.org/topics/cybersecurity-and-technology>
    - AEI <http://www.aei.org>
    - New America <https://www.newamerica.org/cybersecurity-initiative/>

# Getting CyberSmart

## Sample Resources

- *Passcode* The Christian Science Monitor  
<http://www.csmonitor.com/World/Passcode>
- *Global Cyber Bi-Weekly Report by INSS* (The Institute for National Security Studies, Tel Aviv University) <http://www.dcoi-conference.org/single-post/2016/10/19/Global-Cyber-Bi-Weekly-Report-by-INSS-October-1-2016>
- *Threat Brief* – Open Source Intelligence Report Modeled on President’s Daily Brief (Cognitio) <http://threatbrief.com>
- *Net Politics* (Cyber Week in Review) Council on Foreign Relations  
<http://blogs.cfr.org/cyber/2016/10/28/cyber-week-in-review-october-28-2016/>
- *THE CYBERWIRE* (CyberPoint International) <https://www.thecyberwire.com>



# Breaking CyberBread

## Networking

Jim Perkins, *Inspire, Connect, and Empower: A Network of Defense Intrapreneurs* (July 15, 2016) WAR ON THE ROCKS  
<http://warontherocks.com/2016/07/inspire-connect-and-empower-a-network-of-defense-intrapreneurs/>

*“Networking, of course, is helping solve challenges in many aspects of life today. Networks of all kinds – physical, virtual, and social – have – with link after link and strand upon strand – improved how we work and govern, how we sell and shop, how we live and learn. And as the world’s businesses, governments, and other institutions become more interconnected, it’s in tune with the times that the world’s militaries would do the same.”* – Secretary of Defense, Dr. Ashton Carter, [June 20, 2016 at CNAS2016](#)

# Breaking CyberBread

## Networking

Michael Simmons, *The No. 1 Predictor Of Career Success According to Network Science* (August 10, 2015) The Mission (A Medium Corporation) <https://medium.com/the-mission/the-number-one-predictor-of-career-success-according-to-network-science#.4pkv4148l>

“According to multiple, peer-reviewed studies, simply **being in an open network instead of a closed one** is the best predictor of career success.” (Emphasis Added)

### *Pain and Power of Open Networks*

- *Feel like an outsider as a result of being misunderstood and under-appreciated*
- *More accurate worldview—can pull information from diverse clusters so error cancel themselves out; can be a better forecaster*
- *Serve as a translator/connector between groups; more breakthrough ideas*

# Breaking CyberBread

## Networking

- Be strategic in relationship development and cautious in communication
  - In person is always best
  - Beware what you put in E-Mail
    - Marcus Baram, *Secrets Of Silicon Valley Intrigue Revealed in Colin Powell's Hacked Emails* (October 29, 2016) FAST COMPANY <https://www.fastcompany.com/3063781/the-valley/secrets-of-silicon-valley-intrigue-revealed-in-colin-powells-hacked-emails>
  - Social Media (use extreme caution)
    - LinkedIn (useful tool if used judiciously) John E. Dunn, *Keep your LinkedIn profile secure with the Kevin Bacon rule* (October 28, 2016) <https://nakedsecurity.sophos.com/2016/10/28/keep-your-linkedin-profile-secure-with-the-kevin-bacon-rule/>
    - Facebook [https://www.youtube.com/watch?v=juQcZO\\_WnsI](https://www.youtube.com/watch?v=juQcZO_WnsI)
    - Twitter
- Beware the “experts”
  - What are they “selling?”
  - Or, who is funding them?
    - FTC Endorsement Guides Requirements <https://www.ftc.gov/tips-advice/business-center/guidance/ftcs-endorsement-guides-what-people-are-asking#when> not always followed
- “Name Brand” not always synonymous with quality

# Breaking CyberBread Networking

- Why Do You Want a Diverse Team?
  - Context, Context, Context
    - Software Engineering Institute (Carnegie Mellon University) Cyber Intelligence Research Consortium  
<http://www.sei.cmu.edu/about/organization/etc/overview.cfm>
  - Need to determine “common language” / characterization of events
    - Influences action (including military action)
    - Influences economic action/consequences (especially insurance coverage, litigation, brand, etc.)

# Breaking CyberBread

## Networking

- Within/Without
  - Company Silos/3<sup>rd</sup> & N<sup>th</sup> Party Vendors
  - Greater environment
    - Government Ecosystem (Civilian/Military, State, Local, Tribal, Federal, Government Contractors)
    - NGOs
    - Think Tanks
    - Cybersecurity Industrial Complex

# Breaking CyberBread

## Networking

- Compliance & Brand
  - Information Governance (Full-Lifecycle)
    - Privacy (what does this mean), security, intellectual property protection, “records” management
    - Holistic Security Approach
      - Personnel, physical, cyber
  - Brand – “Trust”
    - Relationship w/ consumers (and partners)
      - Personal Data Use
      - Impact of Misuse (loyalty, breach fatigue, litigation capability)

# Breaking CyberBread

## Networking

- Compliance DOES NOT EQUAL Security
  - Decision to be made on how much more to do besides avoiding “sanctions” (Ford Pinto Model)
    - Ethics
    - Economics
    - Impact on Trust
- Regulation
  - FTC, FCC, SEC, CFPB, NYSFD, State Attorneys General, etc.
  - US regulation focused on notification – “After the horse has left the barn” model
    - Exceptions are State “regulations” articulating requirements to be in place to “prevent” (really “decrease risk of”) breach— Massachusetts, Nevada, etc.

# Breaking CyberBread

## Networking

- FinCEN Advisory FIN-2016-A005 *Advisory to Financial Institutions on Cyber-Events and Cyber-Enabled Crime* (October 25, 2016)  
[https://www.fincen.gov/sites/default/files/advisory/2016-10-25/Cyber%20Threats%20Advisory%20-%20FINAL%20508\\_2.pdf](https://www.fincen.gov/sites/default/files/advisory/2016-10-25/Cyber%20Threats%20Advisory%20-%20FINAL%20508_2.pdf)
- This Advisory should be shared with:
  - Cybersecurity units
  - Network administrators
  - Risk Departments
  - Fraud Prevention Units
  - BSA/AML management
  - AML intelligence units
  - AML analysts/investigators
  - **WHO ELSE??**



# Breaking CyberBread

## Networking

- Who should receive information about this case, and what (if anything) should be done internally (and/or externally) to prevent this from happening at your financial institution?
  - *Cyber Criminal Charged in Scheme To Steal More Than \$1.5 Million From A U.S. Financial Institution* (October 27, 2016) <https://www.justice.gov/usao-edny/pr/cyber-criminal-charged-scheme-steal-more-15-million-us-financial-institution>
    - *Defendant Dwayne C. Hans, a US citizen, age 27 (E.D.N.Y. Docket No. 16-MJ-951)*
      - *Data Manipulation*

# Breaking CyberBread

## Networking

- Leverage existing networks and those of your “community”
- Be creative
  - “Happy Hour” events (*e.g.*, “Creative Brainstorming” get-togethers in DC organized by Dr. David Bray, CIO, FCC – everyone pays their own way)
  - Dinner Parties/Hosted Dinners at Favorite Restaurant

# TAKEAWAYS

- Continuous Learning Required
- Relationships Matter
  - Trust
  - Brand
- Take the Initiative to Create New Relationships
- If the criminals are sharing and collaborating, we must as well

# THANK YOU!

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