

SOCIAL MEDIA: LEVERAGING VALUE WHILE MITIGATING RISK

Safeguarding Health Information: Building
Assurance through HIPAA Security

NIST / HHS OCR 2013

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About David Etue @djetue

- VP, Corporate Development Strategy at SafeNet
 - Former Cyber Security Practice Lead [PRTM Management Consultants, now PwC]
 - Former VP Products and Markets [Fidelis Security Systems]
 - Former Manager, Information Security [General Electric Company]
- Industry:
 - Faculty: The Institute for Applied Network Security (IANS)
 - Certified Information Privacy Professional (CIPP/G)
 - Certified CISO (C|CISO)
- Cyber things that interest me:
 - Adversary innovation
 - Social media security
 - Applying intelligence cycle / OODA loop in cyber
 - Supply chain security



Small Print...

- I am not an attorney and do not provide legal advice (and did not stay in a Holiday Inn Express last night...)
- Topics in this presentation may touch on legal issues, which you should discuss with counsel
- Opinions stated here are my own and not of my employer

Defining Social Media

- Key attributes
 - Individually focused
 - Creates and maintains linkages between “users”
 - Fosters interaction
 - All users can be publishers
 - Typically web and/or mobile-based
- Challenges of defining social media
 - HUNDREDS of sites meet above criteria
 - Becoming embedded as a feature of other sites
 - Technology available to create “private” social media sites

Key Sites to Understand

If you understand the operations (and implications) of these sites, you'll be prepared to address most social media risks

Site	Purpose
Facebook	Social utility
Twitter	Microblogging
Google+	Social utility
LinkedIn	Professional networking
FourSquare	Location-based services
Ning	Platform for creating social sites
Pinterest	Virtual pinboard
YouTube	Video sharing
Flickr	Image sharing
Blogger	Web logs, self publishing
Yammer	Enterprise collaboration for controlled communities

Why Social Media is Important

Like it or not social networks have become part of the fabric of how we communicate and collaborate as a society

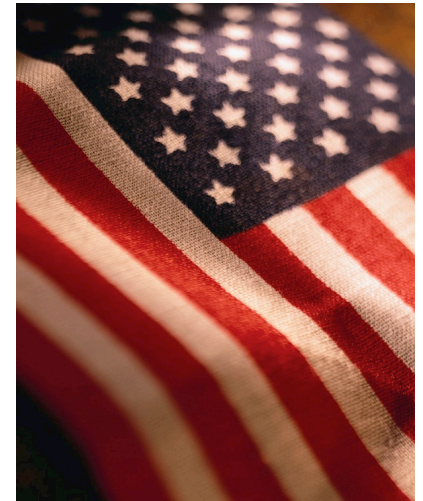
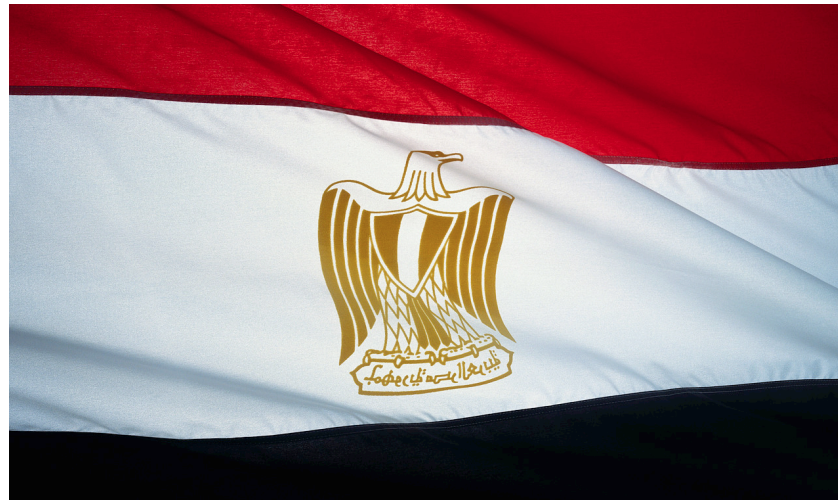
Why?

- Shared experience of social media has changed the Web from informational to collaborative
- Enables faster information sharing and quicker feedback cycles across a much broader audience

Drives value with new approaches to many critical enterprise functions:

- Identifying, communicating, and gathering feedback with customers
- Locating expertise
- Quick communications
- Collaborating with a community, small or large (e.g., wikis)

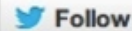
Real Social Impact



Social Media Accounts for 18% of All Time Spent Online
(Comscore, *The State of Social Media*, February 2012)

Negative Impact is Real Too...

AP The Associated Press 
@AP

 Follow

Breaking: Two Explosions in the White House and Barack Obama is injured

 Reply  Retweet  Favorite  More

AP AP Stylebook 
@APStylebook

 Follow

The @AP Twitter account has been suspended after it was hacked. The tweet about an attack on the White House was false.

 Reply  Retweet  Favorite  More

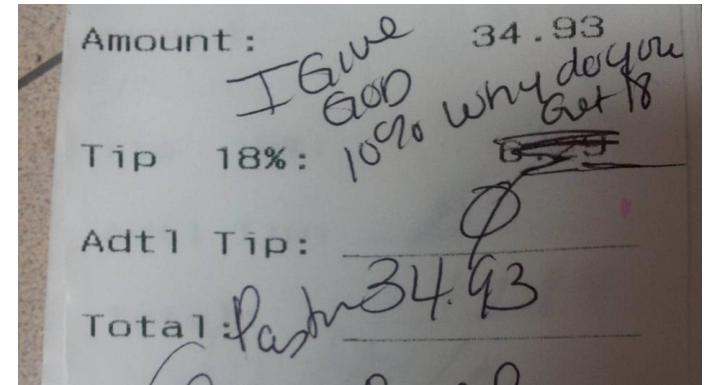
425
RETWEETS

11
FAVORITES



10:27 AM - 23 Apr 13

FROM: TWITTER.COM



[History of Terminations & Firings Because of Employee Social Media](#)

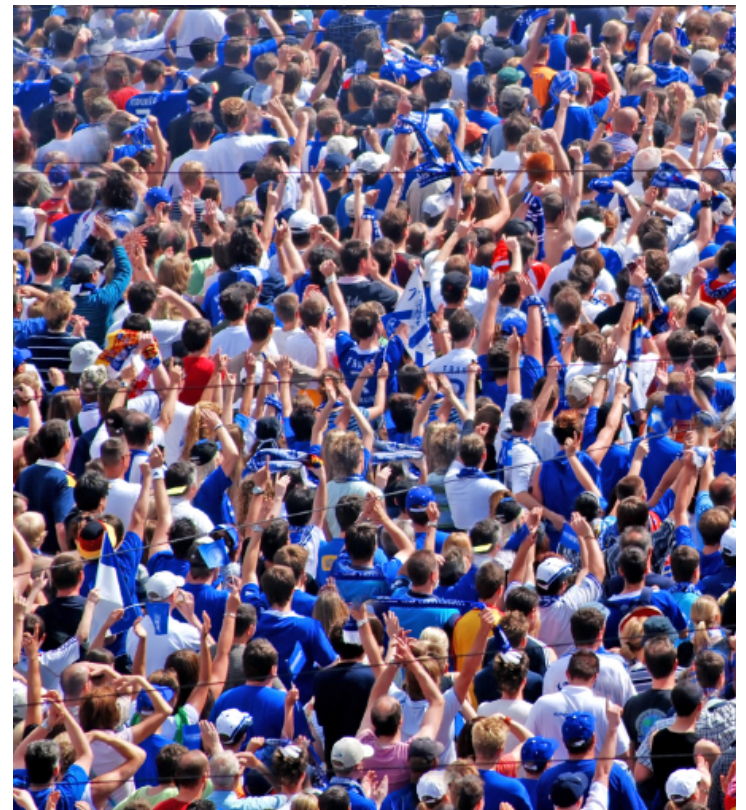
Security Risks from Social Media

Risk #1: Unauthorized Users Speaking on the Organization's Behalf

- Who speaks for your organization?



OR



Risk #2: Inappropriate Posting of Sensitive Information



Risk #2: Inappropriate Posting of Sensitive Information and HIPAA

- The Obvious...

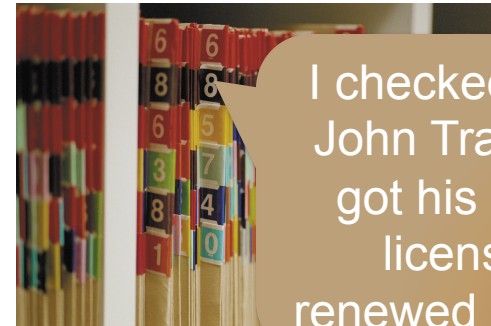


http://www.strategiesfornursemanagers.com/ce_detail/272966.cfm



<http://www.dmlp.org/threats/doe-v-green#description>

- The Not So Obvious...



I checked and John Travolta got his pilot license renewed today!

9 Celebrities You Didn't Know Were Pilots

Shift Change Updates

- Patient 1...
- Patient 2...



<http://www.aao.org/yo/newsletter/201201/article02.cfm>

Risk #3: Enabling Social Engineering



Our client list is confidential!



**Robin Sage
(or Thomas Ryan...)**

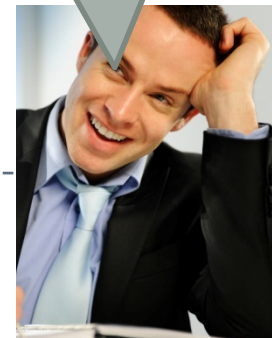
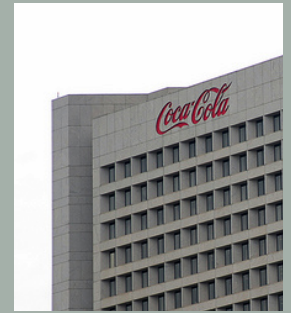


Hampton Inn
Atlanta-
Georgia
Tech-
Downtown



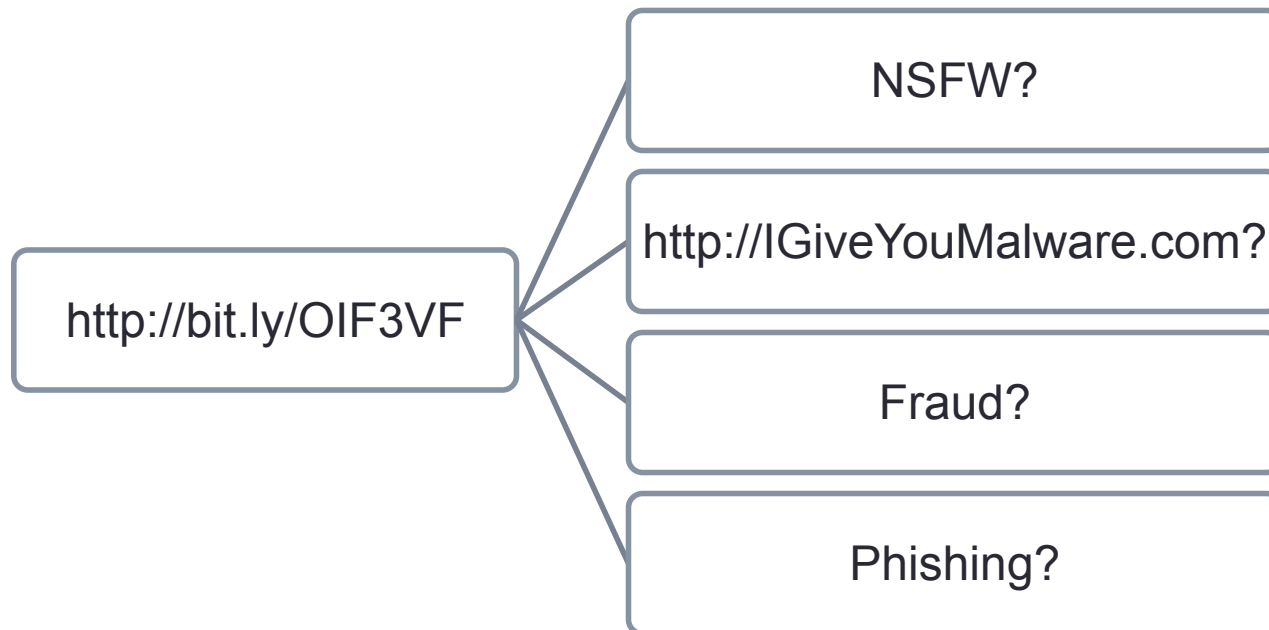
"...strategy
for a major
beverage
company"

Flickr



Risk #4: Malicious Code/Exploit Distribution

- Popular vector for malicious code distribution
- Leverages “trust” inherent in social model
- Password reuse makes accounts vulnerable
- URL shorteners make it even easier...



Mitigating Risks in Social Media

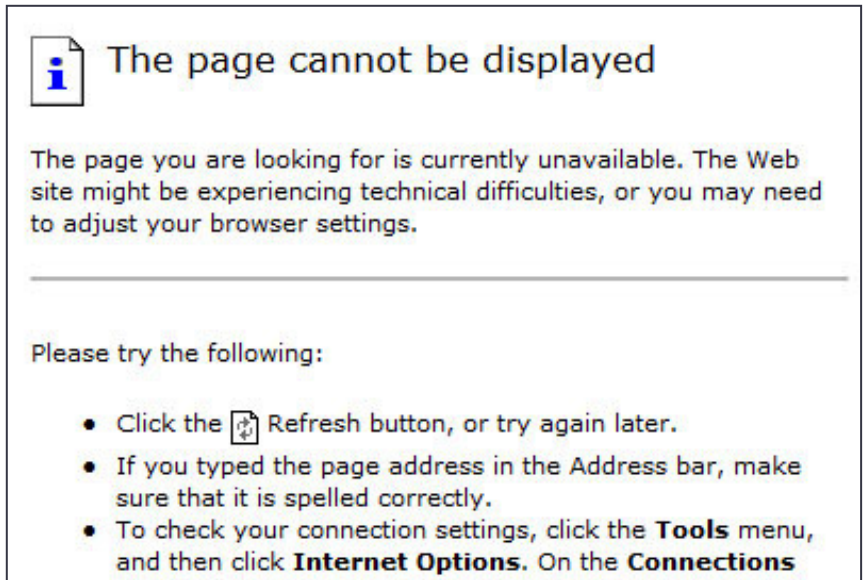
Unless You Are In One Of These...



Scifglobal.com

...Blocking Social Media Is Not Realistic

Why Blocking Social Media Is Not Realistic



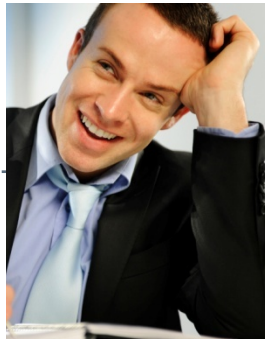
<http://www.flickr.com/photos/johanbrook/4292682794/>

<http://www.flickr.com/photos/kongharald/240840269/>

63% of US Smartphone Owners Access Social Networking at Least Once a Month From the Device
(Comscore, The State of Social Media, February 2012)

Blocking Can Have Negative Consequences...

Digital Natives



GAO

United States Government Accountability Office

Report to the Subcommittee on Oversight of Government Management, the Federal Workforce, and the District of Columbia, Committee on Homeland Security and Governmental Affairs, U.S. Senate

April 2012

MODERNIZING THE NUCLEAR SECURITY ENTERPRISE

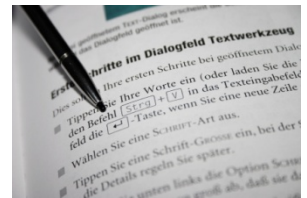
Strategies and Challenges in Sustaining Critical Skills in Federal and Contractor Workforces

NNSA staff are required to work in secure areas that prohibit the use of personal cell phones, e-mail, and social media, which “is a disadvantage in attracting younger skilled candidates.”

**This Doesn't Mean Mitigation is
Hopeless**

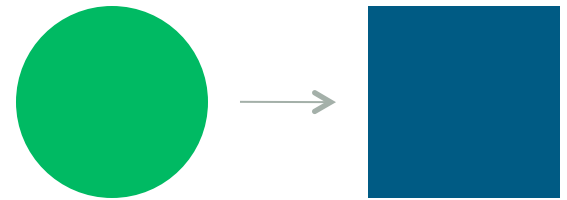
You Don't Need a Social Media Policy...

- ...but your employee code of conduct should cover social media!
- Update computer-use policy to indicate whether it is acceptable to use social networking only for work or for work and personal activities
- Broader policy covering what activities an employee (or contractor) can do on behalf of the organization



Training!!!

- Your users will likely never be computer security experts, but you may be able to make them more advanced
- Opportunity to turn your users into “sensors” for your security program



Create Official Profiles...

...for your leadership and brand on the major social media sites **EVEN IF YOU AREN'T GOING TO USE THEM!**



Protect Official Accounts

- AP and The Onion compromises show vulnerability of accounts
- Many organizations use a social media management platform, which presents an addition to the attack surface
- Generally comes down to authentication and passwords
 - Some social networks supporting Two Factor Authentication
 - However, very few support a method to extend your internal authentication solutions
- And monitoring!

Monitor, Monitor, Monitor (and Train!)

- AMA Guidelines on use of Social Media and *CIO Council Guidelines for Secure Use of Social Media by Federal Departments and Agencies* a good start for designing a monitoring program
- Can be done in-house or paid for services—understand the limitations of each
 - Free: Google Alerts, social media management tools
 - Paid: Open Source / Social Media Monitoring
- Use to adjust the content of training programs and training timing

Technical Solutions

- Just because complete blocking isn't likely acceptable, doesn't mean that technology isn't useful
- Possible approaches:
 - Outbound monitoring/filtering
 - Web filter, DLP, next-gen firewalls, AV?
 - Potential to monitor user, application, content, context
 - Open source monitoring / intelligence
 - Your marketing department may already be buying this!
 - Red teaming / penetration testing
 - Need to cover both social and technical attacks!

Some Positive Examples

- Mayo Clinic's stated mission: *"lead the social media revolution in healthcare, contributing to health and well being for people everywhere."*
<https://www.facebook.com/MayoClinic>
 - <http://youtube.com/MayoClinic>
 - <https://twitter.com/mayoclinic>
 - #SocialAtMayo (including social media guidelines)
- Live "tweeting" of procedures/care WITH PATIENT PERMISSION
- Philanthropy / fundraising
- Doctors seeing pictures in social media and recommending seeing a doctor based on symptoms

THANK YOU!

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