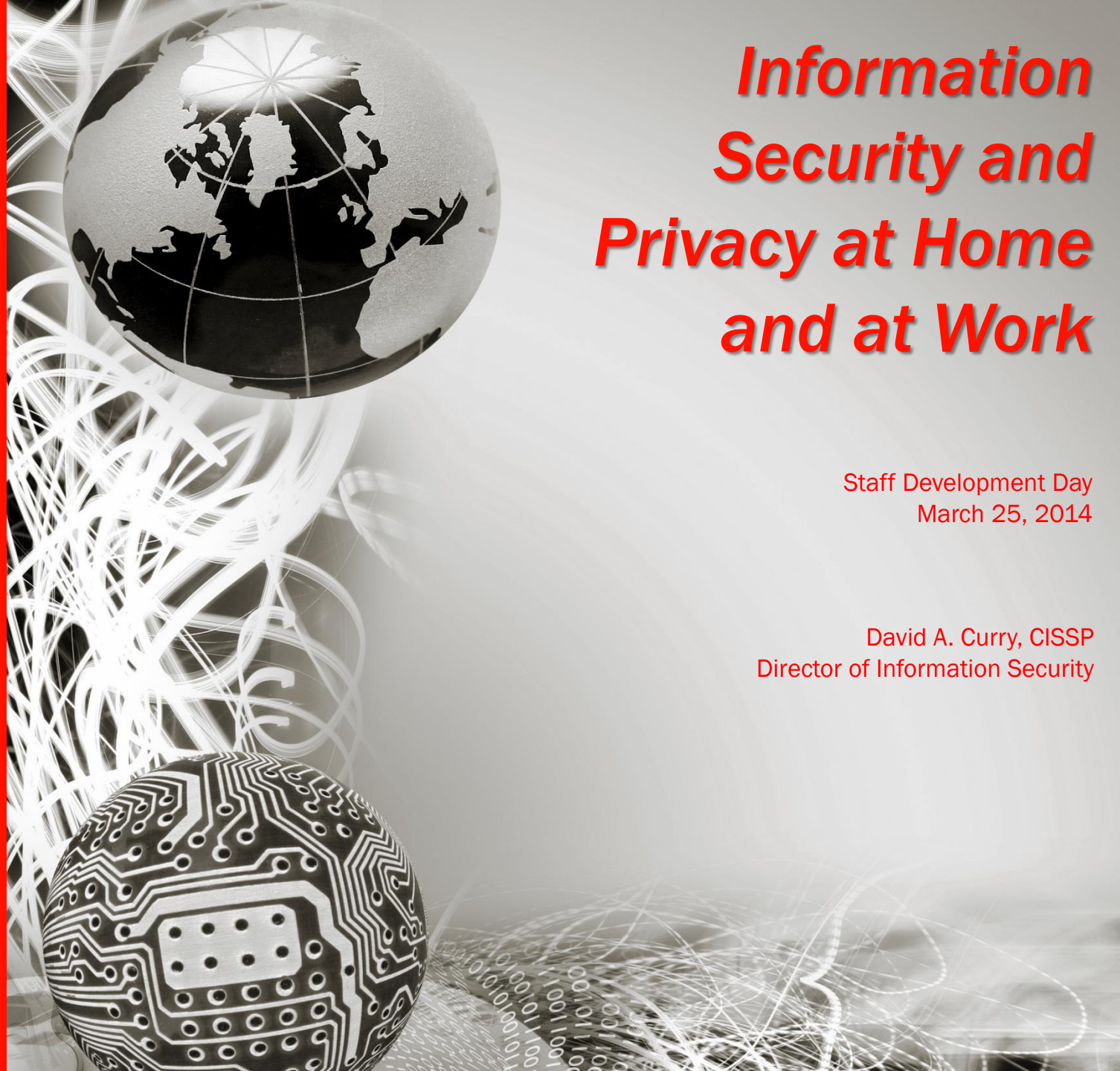
THE NEW SCHOOL



Information Security and Privacy at Home and at Work

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Always start with some definitions…

- Information Security
  - **Confidentiality** – making sure that information is accessible only by individuals who have been authorized to access it; ensuring that information is never disclosed to unauthorized persons
  - **Integrity** – safeguarding accuracy and completeness of information and information processing methods; preventing unauthorized changes to information
  - **Availability** – ensuring that authorized users can access information in a timely manner, when it is needed; making sure that information systems are up and running when they should be
- Information Privacy
  - The interest an individual has in controlling, or at least significantly influencing, how data about him/herself is collected, used, shared, kept up-to-date, and disposed of

Security and privacy at The New School

- Information Security Policy
- Information Resource Acceptable Use Policy
- General Controls for Handling Sensitive Information
- Desktop Information Security Guide
- IT Web Site

Securing your computer and home network

- Keep your operating system up-to-date
  - Configure Windows Update to “Install updates automatically” and “Include recommended updates”
  - Configure Apple Software Update to “Check for updates daily” and “download updates in the background”
  - When prompted to install updates, **install them!**
- Keep applications up-to-date
  - If an application can check for and/or install updates automatically, or at start-up, enable that feature
  - On Windows, consider using Secunia Personal Security Inspector or FileHippo to periodically check for application updates
  - On Macs, consider using AppFresh or MacUpdate Desktop to check for application updates
  - When updates become available, **install them!**

Securing your computer and home network (cont'd)

- Run an up-to-date anti-virus / anti-malware program
  - Free or commercial, take your pick – stick with well-known brands
  - Yes, this applies on Macs too
- Enable (don't disable) your operating system's firewall
  - If anti-virus / anti-malware product wants to disable it that's okay
  - Otherwise, don't touch it
- Change the password on your router
  - Home routers / switches / Wi-Fi access points ship with well-known admin passwords
- Put a password on your Wi-Fi
  - Enable encryption:
    - WPA2 is better than WPA is better than WEP is better than nothing

Keeping information safe and secure

- Protect your passwords
  - Use only strong passwords
    - Minimum 8 characters, mixed case, digits, special characters
    - Pass phrases are even better (but avoid “common” phrases)
  - Use different passwords for different sites
    - Separate work and home, finance and social networking, etc.
    - Use a “template” approach to keep them straight if you want
    - Avoid social network logins for “important” sites
  - Don’t save passwords or write them down
    - Built-in web browser “save this password” features are **not** secure
    - Do not store them in a spreadsheet, write them on a Post-it, etc.
  - Use a password manager
    - Keeps all passwords safely encrypted, automatically generates good passwords, lets you access passwords from anywhere, etc.
    - LastPass, KeePass, 1Password, others

Keeping information safe and secure (cont'd)

- Regularly back up your data
  - New School information
    - New School information should be backed up to departmental share drives (preferred) or removable media
    - Google Drive/Docs should not be used to store "master" copies of business records
    - Use of cloud-based backup solutions is **not acceptable**
    - Desktop computer hard drives are **not** backed up
  - Personal information
    - External hard drives are okay, but do not remove risk of damage by fire or flood or loss due to theft
    - Removable media can be stored in a remote location (but make sure it's a secure location)
    - Cloud-based services are probably the best option
      - Mozy, Carbonite, Dropbox, iCloud, Google, etc.

Keeping information safe and secure (cont'd)

- Securely destroy obsolete information
  - New School information
    - Paper containing Restricted or Confidential information should be shredded (cross-cut or micro-cut) or placed in secure (locked) bins
    - CD-ROMs and DVD-ROMs should be shredded or broken by hand
    - Hard drives and tape media should be returned to IT for secure disposal
  - Personal information
    - Paper should be shredded with a cross-cut or micro-cut shredder
    - Hard drives should be removed from old computers and destroyed
    - CD-ROMs and DVD-ROMs should be shredded or broken by hand
    - USB flash drives can be smashed with a hammer
- Lock your screen when you leave your desk
- Use a locking screen saver

Personally identifiable information (PII)

- Name
- Address(es)
- Telephone number(s)
- Date of birth
- Place of birth
- Social Security number
- Other identification numbers
- Gender and gender identity
- Marital status
- Family
- Education
- Religion
- Beliefs (political, etc.)
- Profession
- Criminal record
- Financial information
- Medical information
- Biometric information (fingerprints, retinal scans, genetic information)
- Other indirect identifiers (mother's maiden name, etc.)

- Fun with "big data"
  - 87.1% of people in the United States can be uniquely identified using only 5-digit ZIP code, birth date, and gender (Sweeney)
    - 53% by *city*, date of birth, and gender
    - 18% by *county*, date of birth, and gender
  - First 5 digits of SSN can be correctly predicted 61% of the time using only date of birth and state of birth (Acquisti & Gross)

Guarding your personal information

- Watch out for phishing scams
  - **Always** be suspicious of emails asking for sensitive information
  - **Never** respond to an email request for personal information
  - **Never** click on the links in a suspicious email

  The TNS IT Help Desk will never ask you to provide or confirm personal or account information via email/clicking a link/filling out a form
- Sending personal information via email
  - Avoid doing this whenever you can -- enter via web site, fax, phone
  - If you can't avoid it, try to find a way to encrypt the information
- Sharing information in social media
  - Know who you're sharing with – limit things to "friends" or "circles"
  - Remove geo-tagging information from photographs you share
  - Don't let mobile apps share your location
  - Don't "check in" to locations publicly

Guarding your personal information

- Identity theft
  - Monitor your bank account and card transactions and balances
    - Set up automatic alerts if your bank / card provider offers them
  - Monitor your credit report
    - Get free (really free) credit reports from AnnualCreditReport.com
    - Credit monitoring services are, generally, not very useful (Krebs)
  - Monitor your health insurance
    - Read explanation of benefits statements carefully
- Stopping annoyances
  - National Do Not Call Registry: DoNotCall.gov
  - Pre-screened Credit Card Opt-Out: PreScreenOptOut.com
  - Junk Mail (Direct Marketing) Opt-Out: DMAChoice.org

Mobile device security

- Don’t store confidential information on your device
  - At the very least, keep it encrypted
- Keep software official and up-to-date
  - Install the latest operating system
  - Be sure to update apps regularly
  - Only use official app stores
- Back it up
  - Keep things in the cloud as much as possible
  - Enable automatic sync (most let you restrict it to wi-fi only)
- Set a PIN, password, or pattern
  - Set device to auto-lock after a couple of minutes
  - Avoid obvious PINs, passwords, and patterns

Mobile device security (cont'd)

- Be careful what you keep in text messages
  - Delete personally identifiable information and security information
- Turn off Bluetooth if not in use
  - Bluetooth can be used to steal information from your device
- Know your Wi-Fi access point
  - Make sure you know the network you're connecting to
    - Just because it says "starbucks" doesn't mean it's Starbucks
  - Disable "connect automatically" for rarely-used networks
- Lock it up
  - Keep phones and tablets out of sight
  - Use a locking cable with your laptop
  - Put it in the trunk, not the back seat

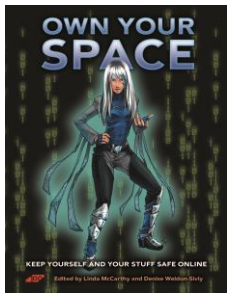
Safeguarding kids on the Internet

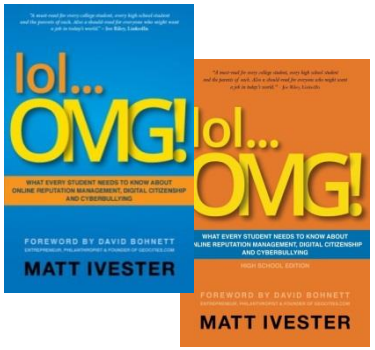
- Keep computers used by children in an open family area – never in their bedroom or the basement
- Screen names, accounts, and passwords
  - For children and young teens, parents should know all of them
  - Make sure they don't reveal full name, age, hometown, school
  - Young children should share a family email address rather than having their own accounts
  - Register children on on-line sites using parent's email address
- Make sure your kids understand that once you post it, you can't take it back
  - Teens have a hard time envisioning the future – how a post they create today may come back to haunt them when applying for college or a job

Safeguarding kids on the Internet (cont'd)

- Explain to kids the dangers of sharing personal information on-line
  - Anyone can see public posts: friends, neighbors, teachers, pastors, law enforcement, college admissions counselors, future employers, strangers, …
  - Use built-in controls on Facebook, Google+, Instagram, etc. to limit posts to friends
  - Never post full names, addresses, phone numbers, bank accounts, or credit card numbers
  - Don't publicly post the name of their school, favorite sports team, where they work or hang out, or friends' names – child predators are clever when it comes to physically locating teens
- Warn kids about flirting with strangers online
  - Make sure they know to come to you if they are suspicious or feel threatened

Safeguarding kids on the Internet (cont'd)





- OnGuard Online (web site)
  - Computer security, online safety for kids, avoiding scams, etc.
- Own Your Space (free download)
  - Aimed primarily at pre-college teens
  - Covers security, privacy, bullying, social media
  - Dated in spots but advice still applies
- lol…OMG! (Amazon, etc.)
  - Aimed primarily at college and high school students
  - Covers social media – how to use it safely and how to get in trouble
  - What to do about cyber bullying

Resources for further information

- New School IT Security Web Site
  - http://www.newschool.edu/information-technology/security
  - Policies and Standards: data classification, handling sensitive information, and more
  - Security Handbook: detailed information, including how-to instructions, on securing your computer and information
  - Copies of the Desktop Information Security Guide and this presentation (on the “Security Handbook” page)
- OnGuard Online
  - http://www.onguardonline.gov/
- “Own Your Space” download
  - http://www.ownyourspace.net/

Resources for further information (cont'd)

- Free credit reports
  - https://www.annualcreditreport.com
- National Do Not Call Registry
  - https://www.donotcall.gov/
- Pre-screened credit opt-out
  - https://www.optoutprescreen.com/
- Junk mail opt-out
  - https://www.dmachoice.org/

References

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- Krebs, Brian. “Are Credit Monitoring Services Worth It?”
  - http://krebsonsecurity.com/2014/03/are-credit-monitoring-services-worth-it/
- Sweeney, Latanya. “Simple Demographics Often Identify People Uniquely”
  - http://dataprivacylab.org/projects/identifiability/index.html

Questions