

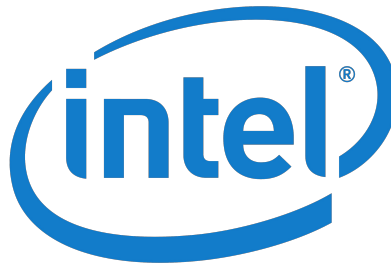


CYBER SECURITY BOOT CAMP

Social Engineering

Session 6

Sponsored by:



YELLOW CIRCLE INC
PO Box 2383
Elk Grove California 95759-2383

Teacher Lesson Plan

Session Name:

Social Engineering

Summary:

This course will help learners to identify and protect against social engineering attacks via social media, email, text, and other communication channels.

Time Allotment:

75 minutes

Learning Objectives:

- Describe social engineering
- Identify ways in which personal information can be harvested from social media
- Identify ways to protect personal information posted on social media
- Define phishing
- Identify clues that a communication is either genuine or suspicious
- Identify actions to take if a phishing attack occurs

Supplies:

- Paper & pen or pencil to take notes
- Social engineering slide deck (Teacher only)
- Digital Footprint Worksheet (1 copy per student)
- Profiler Practice Worksheet (1 copy per student)
- Laptop (optional)

Learning Activities:

- (2 - 5 minutes) - Teacher Introduction

Introduce yourself to students if you are new to the classroom. If you are continuing from a previous session, start with welcome back.

- (2 - 5 minutes) - Volunteer Introductions

Introduce any new volunteers that might be present. Teachers will be provided with a quick bio of each volunteer who are helping in the classroom. Only new volunteers need to be introduced.

- (5 minutes) - Session overview

Social engineering is the non-technical cracking of information security (IS). It applies deception for the sole purpose of gathering information, fraud or system access. (<https://www.techopedia.com/definition/4115/social-engineering>)

The more information available, the greater the potential for social engineering

- (5 minutes) - What is Social Engineering Video

https://www.youtube.com/watch_popup?v=CLinev3eNc8

- (3 - 5 minutes) Counting Connections slides / presentation:

- Social Media: Counting Connections

- *How often do you check social media each day?*
 - *How often do you post on social media?*
 - *What social media services do you use?*
 - *Which ones do you use most often?*
 - *How many people (friends or followers) are you connected to on each service?*
 - *How many more people are they connected to?*

- Questions on Connections

- *Is it possible to be too connected?*

- (5 -10 minutes) Activity / Exercise

- “What’s Your Digital Footprint?” (Digital-Footprint-Worksheet)
- Have learners complete the assessment and use the rating system to see the size of their digital footprints
- Are you comfortable with the size of your digital footprint?
- What can you do to reduce it?
- Open Discussion to segue into 2 main topics of course
 - Share Smart
 - Fakes and Phishing

- (1 - 2 minutes) Share Smart Intro

Often times, information we share can make us vulnerable to Social Engineering attacks.

- (8 - 10 minutes) - 6 Degrees of Information Video

Explain to students that the researcher was able to find so much information about the teens in the video because they left a lot of digital footprints (e.g. linked accounts, accounts that share email addresses or profile pictures, posts that included personal information, etc.).

https://www.youtube.com/watch_popup?v=GYHbanR3EiU

- (3 - 5 minutes) Share Smart slides / presentation:

- Social Media Data Sources - Identify ways information can be found on social media.
 - *Pictures*
 - *Posts*
 - *Location Tags*
 - *Friend Tags/Accounts*

- *Connected Accounts*
- Discovering Personal Information - Identify what types of personal data can be found.
 - *Location/Vacation*
 - *Hobbies & Interests*
 - *Personal Details (DOB, Schools, Work)*
 - *Secondary Info (Info about friends and family)*
- Protecting Personal Information - Identify ways to protect this information
 - *Customize social media privacy settings*
 - *Make decisions about each item you share (use post security controls)*
 - *Make decisions about how much profile information to provide*
 - *Check the background of your photos*
 - *Other ideas?*
- (10 - 15 minutes) Exercise / Student Activity
 - Profiler Practice (Profile-Practice-Worksheet)
 - *Review the sample posts from 3 people*
 - *Identify personal data that can be determined from the posts*
 - *What could they (and you) do to help protect their personal data?*
- (1 - 2 minutes) Fakes & Phishing - Intro

Phishing is an attempt to obtain financial or other confidential information from Internet users, typically by sending an email that looks as if it is from a legitimate organization, usually a financial institution, but contains a link to a fake website that replicates the real one - <http://www.dictionary.com/browse/phishing>

- (3 - 5 minutes) Fakes & Phishing - Video

https://www.youtube.com/watch_popup?v=FZp4mBtJBNQ

- (5 - 10 minutes) Fakes & Phishing - Slides / Presentation

- What is this phishing?
 - *Phishing is an attempt to steal login credentials or other private information by impersonating a trusted source*
 - *Phishing can happen via email, text, or almost any other form of communication (including phone calls and in person)*
 - *Even if you don't provide information, opening an infected attachment in a phishing email may infect your computer and result in data theft or loss*
- Some Things To Look For:
 - *Is the URL spelled correctly?*
 - *Do the links in the text match the hover over link?*
 - *Does the top level domain match what you would expect?*
 - *Is all of the contact information accurate and specific?*
 - *Is the text well formatted and professional?*
- More Things To Look For:
 - *Does the site have a secure certificate?*
 - *https://*
 - *Valid Certificate*
 - *Review Secure Connection Window*
 - *Review Certificate Window*
- Worst Case Scenario – What to do if you take the bait
 - *DO NOT PANIC – Knowing there is a problem is the first step in solving it.*
 - *Inform a responsible adult right away – fast action can minimize risk of harm*

- *Change passwords*
- *If you think your contact or friend information has been taken, let friends know so they can be on the lookout*
- *Report it to appropriate service providers*
- (15 - 20 minutes) Exercise – Group – Find the Phishing
 - Owl Cinema Email – Real or Fake? - Real
 - *How can you tell? – Header address is what one would expect. Email does not ask for personal information. Suggests going to site (but does not provide a link) to check and update info.*
 - *A phishing email would likely have provided a link to a “cloned” website to try and steal login credentials.*
 - Internaut Mail Login – Real or Fake? - Fake
 - *How can you tell? – No SSL, URL uses numbers in place of some letters (trivia what is one name for this? 1337 “leet”)*
 - Robin Loxley Email – Real or Fake? - Fake
 - *How can you tell? – “Offer” too good to be true, asks for personal details*
 - Internaut Account Verification – Real or Fake? – Fake
 - *How can you tell? – No SSL, URL domain is very different from other internaut URLs, Asks for info without providing any (usually, verifications that ask for your email will provide a partial email that you must complete like J****@J*****.com to challenge John@internaut.com)*

- (2 minutes) - Session Feedback

Have volunteers distribute feedback form to students, and give them a few minutes to fill out the survey.

Volunteers to collect feedback forms and save them for event manager.

- (2 minutes) - What's next?

Inform students to head back to cafeteria for lunch, and remind them to use restroom before next session starts.



What's Your Digital Footprint?

Which social media sites and apps do you use the most?

Write your top five in the list below and then fill in the footprints according to the rating scale.

How much of a footprint do you leave on each site/app?

Digital Footprint Rating Scale



» **You post on here all the time**, you have tons of friends/followers, and you don't filter yourself...ever!



» **You post on here often**, you have a good number of friends/followers, and you're sometimes careful about what you post.



» **You post here sometimes**, you have some friends/followers, and you are usually careful about what you post.



» **You are rarely on here**, you have very few friends/followers, and you are always careful about what you post.



» **You can't even remember the last time you used this.**

1. _____



2. _____



3. _____



4. _____



5. _____



Total number of footprints: _____



Jenny

Under-the-sea photos from the dance!
Looking good, y'all!



Best Ways to Battle Zits

My little brother alex is SOO annoying.
Maybe he's an alien



Laser Tag Arena, Maple St.



Young Designers Conference
at Thompson University

FINALLY SAW THE NEW SPY WARS
MOVIE. Omg obsessed!

Tyler

Won game! One more game to go
before championship. Gotta practice
more 1st base throws.

I hate school dances. #notgoing



Academy of Science,
Philadelphia



10 Signs Your Parents are
Trying to Ruin Your Life

Fishing this saturday with my dad at
Penny Pack Park! Gonna be awesome



La La Luna at
City Center Area

Leah



Barney's Burger Emporium

Missed the winning goal. ugh.
At least we tied.



25 Photos of Puppies



The Westfield High Junior Prom

Check out my friend's website!
I wrote the code for it.

New high score!!
Yessss. I luv gem jam!!