



CYBER SECURITY BOOT CAMP

Social Engineering

Session 6



YELLOW CIRCLE INC
PO Box 2383
Elk Grove, CA 95759-2383

Teacher Lesson Plan

Social Engineering

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:

- *Scrap paper / notepad to take notes*
- *Digital Footprint Worksheet (print)*
- *Profiler Practice Worksheet (print)*
- *Laptop / computer with Internet access for research activities (optional)*

Learning Activities:

- **(2 - 5 minutes) - Teacher Introduction**



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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) - Volunteers Introduction**

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) - Video : What is Social Engineering**

<https://www.youtube.com/watch?v=CLinev3eNc8>

- **(3-5 minutes) - Counting Connections**

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?*



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- **(5-10 minutes) - Student Activity : Digital Footprint**

"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*

- **(2 minutes) - Share Smart Introduction**

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

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

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?v=GYHbanR3EiU>

- **(3-5 minutes) - Share Smart**

Social Media Data Sources - Identify ways information can be found on social media.

- *Pictures*
- *Posts*
- *Location Tags*



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- *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) - Student activity : Profiler Practice**

- *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?*

- **(2 minutes) - Fakes & Phishing Introduction**

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>



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

<https://www.youtube.com/watch?v=FZp4mBtJBNQ>

- **(5-10 minutes) - Fakes & Phishing Introduction**

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*



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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 minutes) - Student Activity : 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*



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that ask for your email will provide a partial email that you must complete like

- *J****@I*****.com to challenge John@internaut.com)*

- **(2 minutes) - What's next?**

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



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