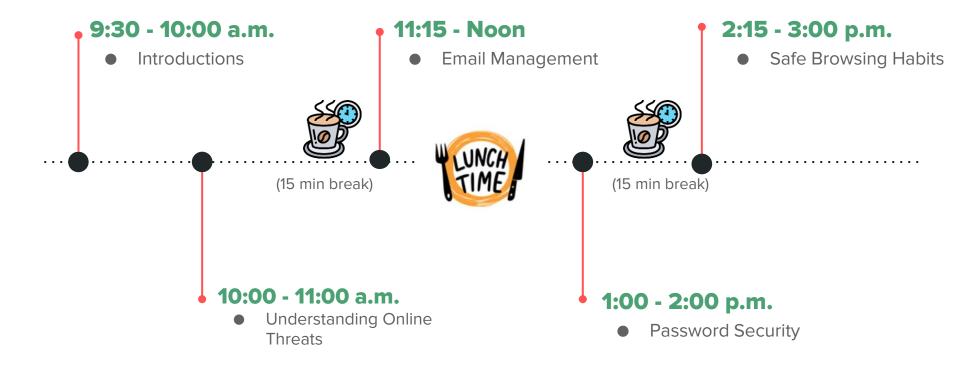
# From Clickbait to Cyber Safe

An internet security awareness workshop

## Agenda - Day 1



#### Ice breaker

"Get to know you Jenga"



#### How to Play:

- Roll the die.
- Grab colored block that is indicated on die.
- Look at the numbered sticker on the block.
- Answer the question for that number, see slide notes for questions.
- Don't let the tower fall!

# **Understanding Online Threats**

10:00 - 11:00 A.M.













## Social Engineering



## How do they do it?

**Authority:** An attacker may call you pretending to be an executive in order to exploit your tendency to comply with authority figures.

**Liking:** An attacker may try to build rapport with you by finding common interests, and then ask you for a "favor".

**Reciprocation:** An attacker may try to do something for you, or convince you that he or she has, before asking you for something in return.

**Consistency:** An attacker might first get your verbal commitment to abide by a fake security policy, knowing that once you agree to do so, you will likely follow through with his next request in order to keep your word.

**Social Validation:** An attacker may try to convince you to participate in a fake survey by telling you that others in your department already have. He or she may have even gotten some of their names and use them to gain your trust.

**Scarcity:** An attacker may tell you that the first 10 people to complete a survey will automatically win a prize and that since some of your co-workers have already taken the survey, you might as well too.

# Phishing Attacks

Phishing involves tricking individuals into revealing sensitive information such as passwords or credit card numbers by posing as a trustworthy entity.



## Demo



## Components of a Phish

A phishing attack typically involves several components, each aimed at deceiving the victim and achieving the attacker's objectives.

#### Here are the key components:

- 1. Bait
- 2. Spoofed Communication
- 3. Deceptive Content
- 4. A Call to Action
- 5. A Sense of Urgency



## Phishing Foundations Video



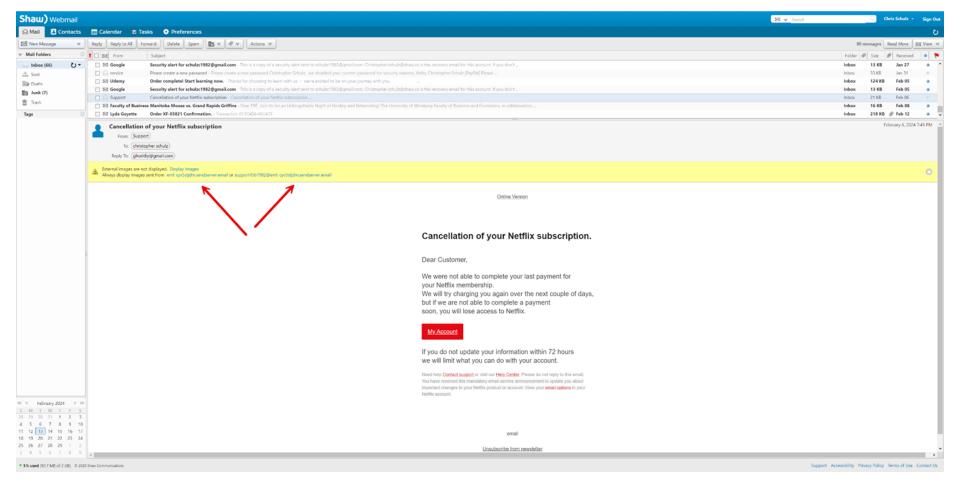
### Phish Finder

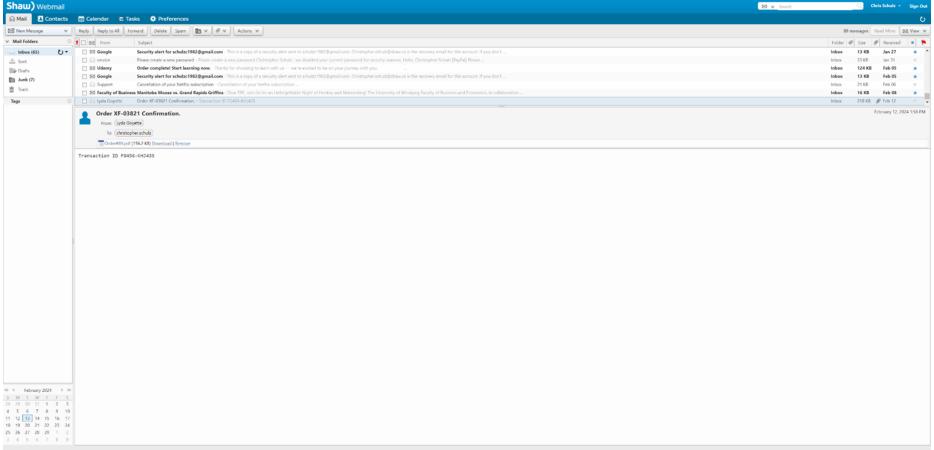


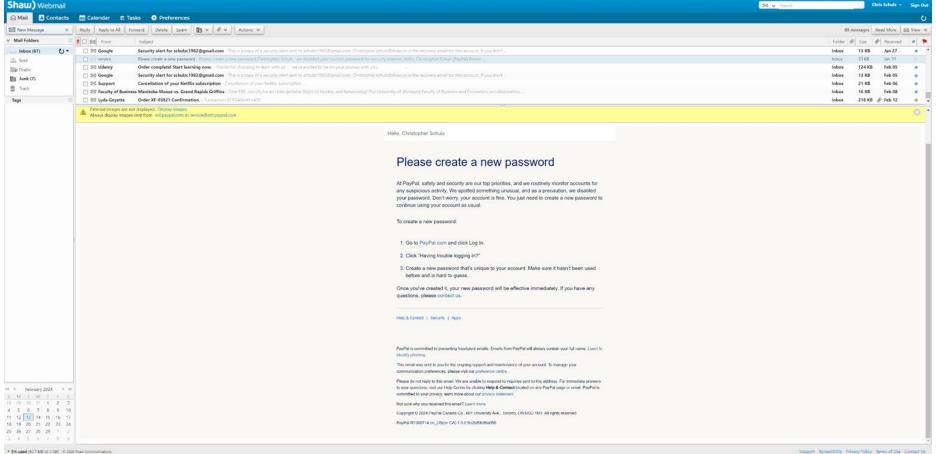
- Are you familiar with the sender?
- Does the message contain spelling or grammatical errors?
- Are there any suspicious links or unexpected attachments?
- Does the email promise some kind of financial reward?
- Does the email threaten you, saying your account has been hacked, or that you face legal action, etc.?
- Is the message urgent / time sensitive? You must take action now!

## Stop, Look, Think









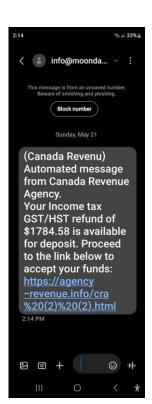
## Smishing

Text Message Mon, Jan 1 at 1:27 AM

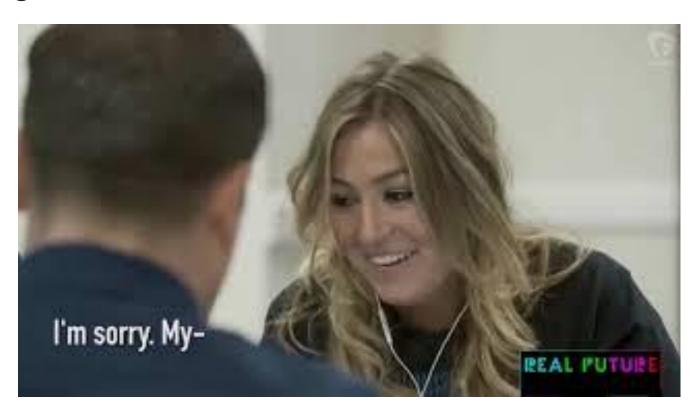
Rogers Alert: We regret to inform you that your payment to Rogers has failed.

Please make a payment to avoid any interruption in the next 24 hours at <u>myrogers-payment.com</u>

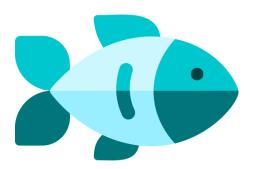
**Text Message** Fri, Jan 5 at 10:56 PM Canada Post Msg: It seems like you missed your package. To reschedule a new date of delivery, please refer to canpostdeliverysupport.com



## Vishing



# Spot The Fish





#### Safe Email Communication Practices

- 1. Have a Strong Password
- 2. Use Two-Step Authentication
- 3. Avoid Logging into public computers, don't save your password
- 4. Avoid checking Email over Public Networks
- 5. Be careful with downloading attachments from unknown senders

## Spam Filters and Email Settings



Take a little



COFFEE BREAK

# Malware: who's who at the Zoo?

11:15 - Noon

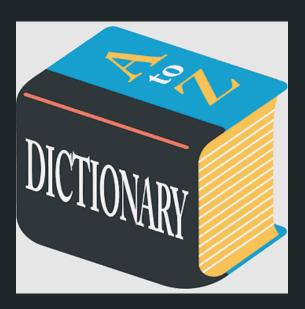
# Keylogging

Keystroke logging, often referred to as keylogging or keyboard capturing, is the action of recording the keys struck on a keyboard, typically covertly, so that a person using the keyboard is unaware that their actions are being monitored.



# Password Attacks

Password attacks involve attempts to gain unauthorized access to systems by exploiting weak or stolen passwords through techniques such as brute-force attacks or password guessing.



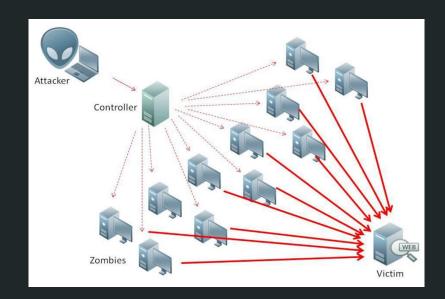
## Ransomware

Ransomware encrypts files on a victim's computer, rendering them inaccessible until a ransom is paid to the attacker, who then provides a decryption key.



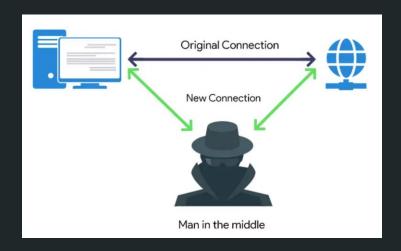
# Distributed Denial of Service Attacks

Flood a system, service, or network with excessive traffic, rendering it unavailable to users.



# Man-in-the-Middle Attacks

Involve intercepting communication between two parties to eavesdrop, modify, or inject malicious content into the communication.



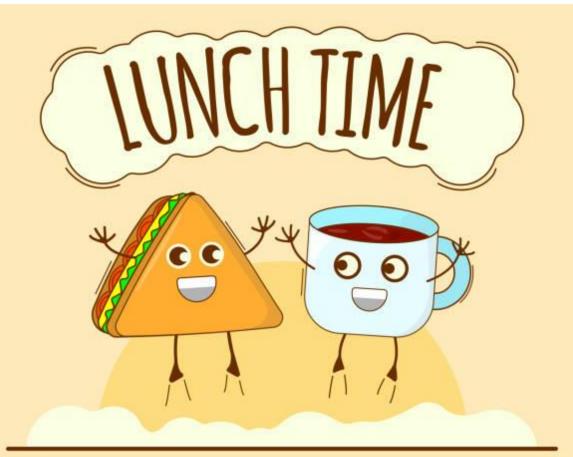
## Wi-fi Eavesdropping



# Unpatched Software

Failure to update or patch software regularly can leave systems vulnerable to known exploits that have been addressed by security updates.





# Password Management

1:00 - 2:00 PM

## Importance of Unique Passwords for Different Accounts

https://codepen.io/CoryMaklin/pen/OZqRoq



## Creating Strong Passwords

- At least 12 characters long but 14 or more is better.
- A combination of uppercase letters, lowercase letters, numbers, and symbols.
- Not a word that can be found in a dictionary or the name of a person, character, product, or organization.
- Significantly different from your previous passwords.
- Easy for you to remember but difficult for others to guess.

Consider using a memorable phrase like "6MonkeysRLooking^".

P@\$\$Wo\_rD

## **Password Strength Chart**



This is based on the average brute forcing (botnet) power in 2019.

<b>123456</b> Top 10,000 password	0.20 milliseconds	Unsafe
qwerty123456 Longer "common" password	13 hours	Unsafe
ITFunSom3times Longer password with numbers	48 thousand years	Risky
ITi\$fun\$0m3times! Longer password with numbers and special characters	13 trillion years	Good
imusingalongpasswordtoday Even Longer password	913 trillion years	Better
mu\$inga1ongpa\$\$word+oday!  Even Longer password with numbers  and special characters	2 octillion years	Best

Please Note: These passwords are for demonstration purposes ONLY and are not to be used.

## Password Management Tools

- LastPass
- 1Password
- Nord Password

#### Multi-Factor Authentication

# PASSWORD-BASED AUTHENTICATION

- · Easy to crack
- Requires 1 identity proof
- Something you know
- Understood by everyone
- Vulnerable to data leaks and password attacks (brute-force, dictionary, rainbow tables, credential stuffing, and more)

# TWO-FACTOR AUTHENTICATION

- Hard to crack
- Requires 2 identity proofs
- Something you know + Something you have/are
- · Easy to understand
- Some authentication methods may be vulnerable to some forms of attack; generally secure

Multi-factor authentication is an electronic authentication method in which a user is granted access to a website or application only after successfully presenting two or more pieces of evidence to an authentication mechanism.

Take a little



COFFEE BREAK

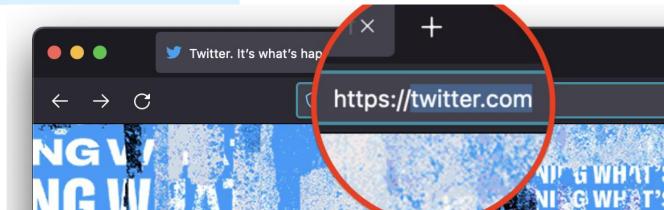
# Safe Browsing Habits

2:15 - 3:00 PM

## Safe Browsing Habits

- Keep software, and devices updated: Regularly update your operating system, web browsers, and other software to patch security vulnerabilities. Enable automatic updates whenever possible.
- Use HTTPS: Look for HTTPS in the URL of websites you visit, especially when entering sensitive information like passwords or credit card details. HTTPS encrypts data transmitted between your browser and the website, making it more secure.
- Be cautious on public Wi-Fi: Avoid accessing sensitive information, such as online banking or shopping, on public Wi-Fi networks. If you must use public Wi-Fi, consider using a virtual private network (VPN) to encrypt your internet connection.





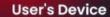
## **How a VPN Works?**

#### **VPN**



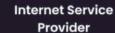
#### **No VPN**













Internet