

35<sup>th</sup> Anniversary National Conference July 18-21, 2022

# Cyber Crime Raising Public Awareness

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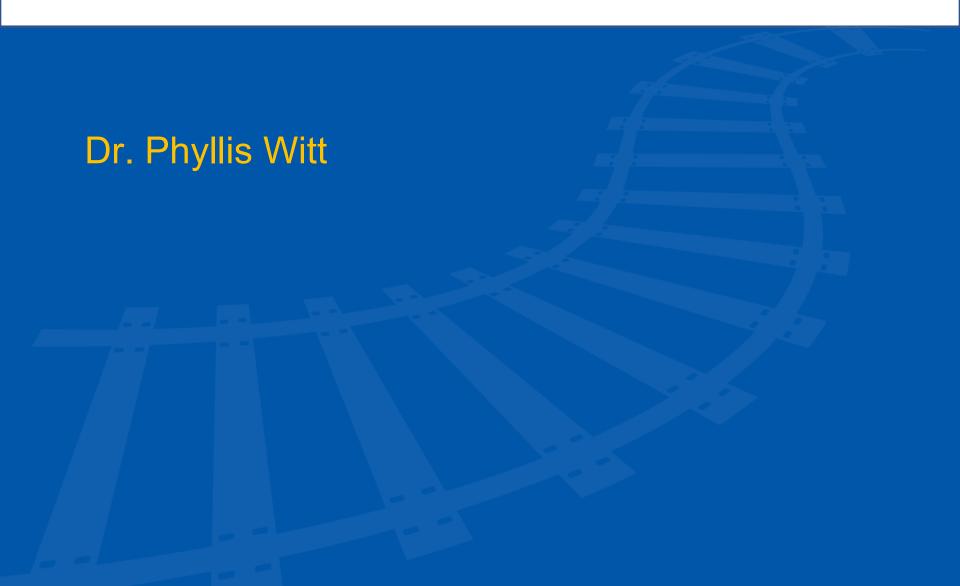


## Overview

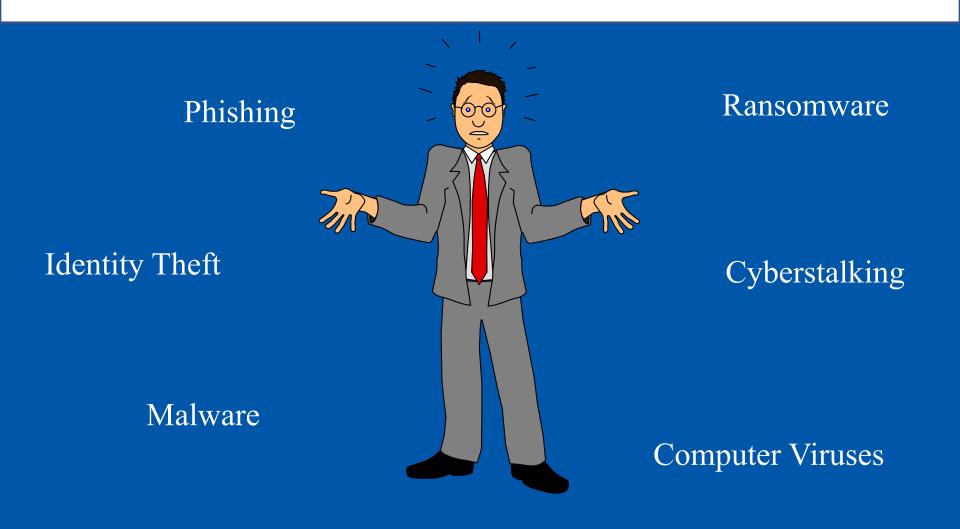
 The devastating impact cyber crime can have on the life of a distance-learning professional who is both a researcher and a practitioner.

- What the literature reflects on the topic.
- How to stay safe.

## The Impact of Infiltrated Networks



## Common Devastating Cybercrimes



## Why is this a major concern?

#### **The Pandemic Caused:**

- A shift to remote work
- A major increase in cybercrimes

# During a House Meeting in June 2020, Rep. Emanuel Cleaver Stated:

 The FBI reported seeing a 75 percent spike in cybercrimes, daily.

### A Hacked Home Router

#### When a home router is hacked:

- All computers and devices on the network are compromised.
- All files and data are compromised.

#### **Criminals:**

- Control all computers and devices whether in on or off mode.
- Change all device and/or computer settings.
- Deny the owner access to data and apps.
- Change and block security settings.
- Restrict website access.
- Block internet access.
- Add spyware and/or malware.
- Create hidden accounts.

### A Hacked Home Router

#### **Criminals will:**

- Cyber-stalk you
- Set anonymous notifications to alert the criminals each time you log on.
- · Watch every site entered.
- Anonymously record and store passwords.
- Use recorded passwords for identity theft.
- Use recorded passwords to steal from bank accounts.
- Use stolen information to acquire new accounts.
- Attempt to use the cameras on all computers and devices to get a glimpse of you and your personal environment.

## The Devastating Impact

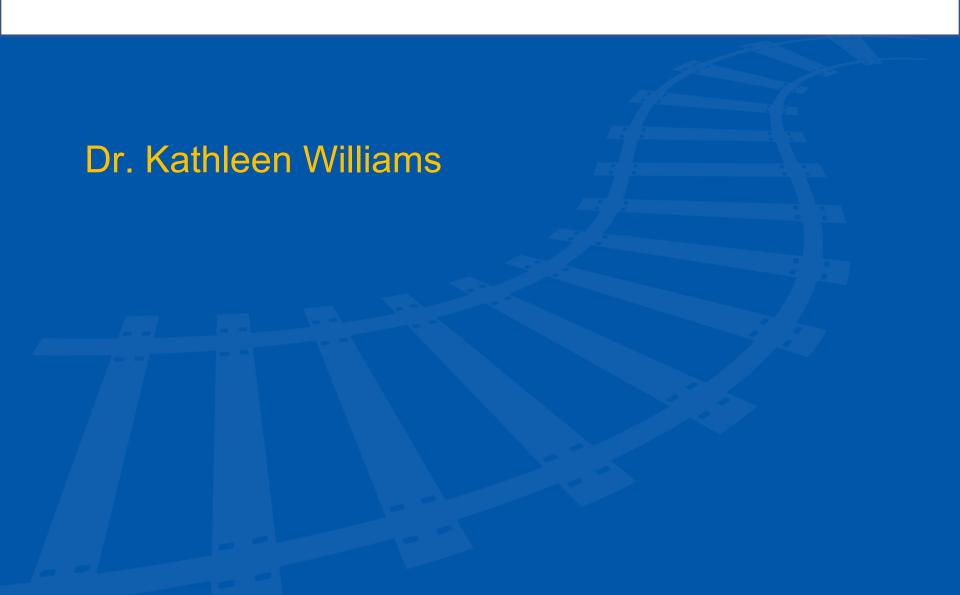
#### You can no longer:

- Uphold privacy laws
- Secure private data (i.e., payroll, social security numbers)

#### **Criminals can:**

- Override VPNs
- Change or delete sensitive information
- Change or delete files and apps
- Enter Zoom meetings anonymously
- Write on your whiteboard during active meetings
- Change how you appear to your audience
- Do everything within their power to annoy you
- Hinder and/or hurt performance.

## The Literature



## How Big of A Concern Is This?

### **Fortune Magazine**

105% surge nationally in cyberattacks in 2021

### Verizon Data Breach Incident Report 2022

- Frequency: 1,241 incidents, 282 with confirmed data disclosure
- Motives: Financial (95%), Espionage (5%)

Cyber attacks on educational institutions are quickly growing

## Post-COVID Attacks

- Malware hidden in textbooks and documents
- Hacking remote learning sessions (Zoombombing)
- Ransomware
- Phishing emails

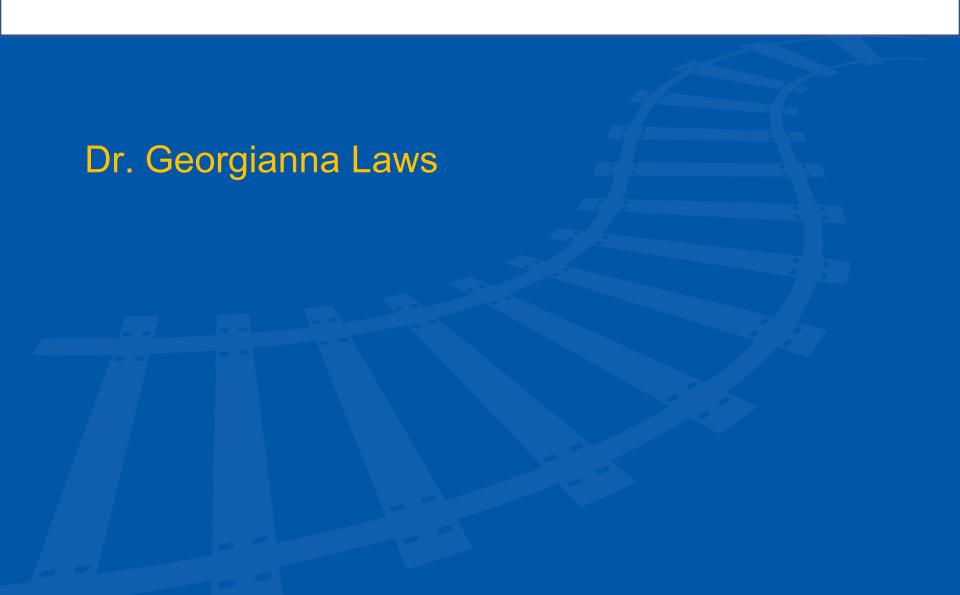
## Impacts

- Lack of access to systems can impact enrollment
- Data leaks can lead to identity theft (students and faculty)
- Infection of back-ups
- Psychological and emotional damage
- Increase in premiums for cybersecurity insurance
- Cyberpandemics

## How Does This Happen?

- Non-deletion of accounts after resignation or job change
- Lack of or infrequent access control audits
- Shortage of people working in cybersecurity
- Threats from internal employees
- Lack of cyber safety training for staff
- Large scale growth of customer facing networks and online cloud technologies
- Unsecure home networks (Remote work)

## Cyberhygiene



## It's on Us

- How do you keep your home safe when you go on vacation?
  - Neighborhood police patrol
  - Security system
  - Cameras
- Do you lock your doors/windows?
- Do you give anyone the key to your home?

## **Passwords**

#### **Characteristics**

- Numbers
- Letters (Upper & Lowercase)
- Special Characters
- Phrases
- Two-factor authentication

### Frequency of Change

Every Semester

#### **Storage – Pros and Cons**

- Written
- Password Vault
- Memorized



## Staying Safe at Work

#### **Preventative Methods**

- Training
- Look out for anything "phishy"
- Lock your computer when you step away
- Have a strong, unique password that you change frequently, etc.

## Free Cybersecurity Classes



The Global Cyber Threat Environment

VIEW FULL PLAYLIST



**Cyber Conflict** 

VIEW FULL PLAYLIST



**Strategic Cybersecurity** 

VIEW FULL PLAYLIST



## Staying Safe at Home

### **Identity Security**

Careful with whom you share your SSN

### **Device Security**

- Device password
- Admin account

### **Home Network Security**

- Change the default internet password
- Encrypt your internet

## Think Before You Share

- Social engineers get people to do what they are not supposed to do.
- Hackers can leverage what you share in order to engineer a targeted attack you are likely to fall for
- Limit personal information you share on social media
  - Checking in
  - Favorite things
  - Providers you use, etc.

## Think Before You Click

### Look for warning signs

#### Sender

- Public domain email address
  - e.g., email from PayPal coming from a Gmail account
- Domain name misspelled

#### Message

- Poorly written
- May refer to something you know well/use
- Asks you to click, download, authenticate, etc.
- Creates a sense of urgency

## Learn from the world's most famous hacker, Kevin Mitnick

https://www.mitnicksecurity.com

## **Think Ahead**

### Use Virtual Private Network (VPN)

https://www.pcmag.com/picks/the-best-free-vpns

Avoid free, unencrypted wi-fi connections

### Back up your important data

- Cloud
- External disk
- Ransomware proof

Use an RFID wallet when you travel, etc.

## Q&A, Contact, and Handout

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