Cybersecurity - ISAC

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Agenda

Challenges faced by the education sector.

Post COVID hybrid work environment.

Security awareness and best practices.

Steps to protect student information in GAP Access.

Institution's responsibilities.

Questions??

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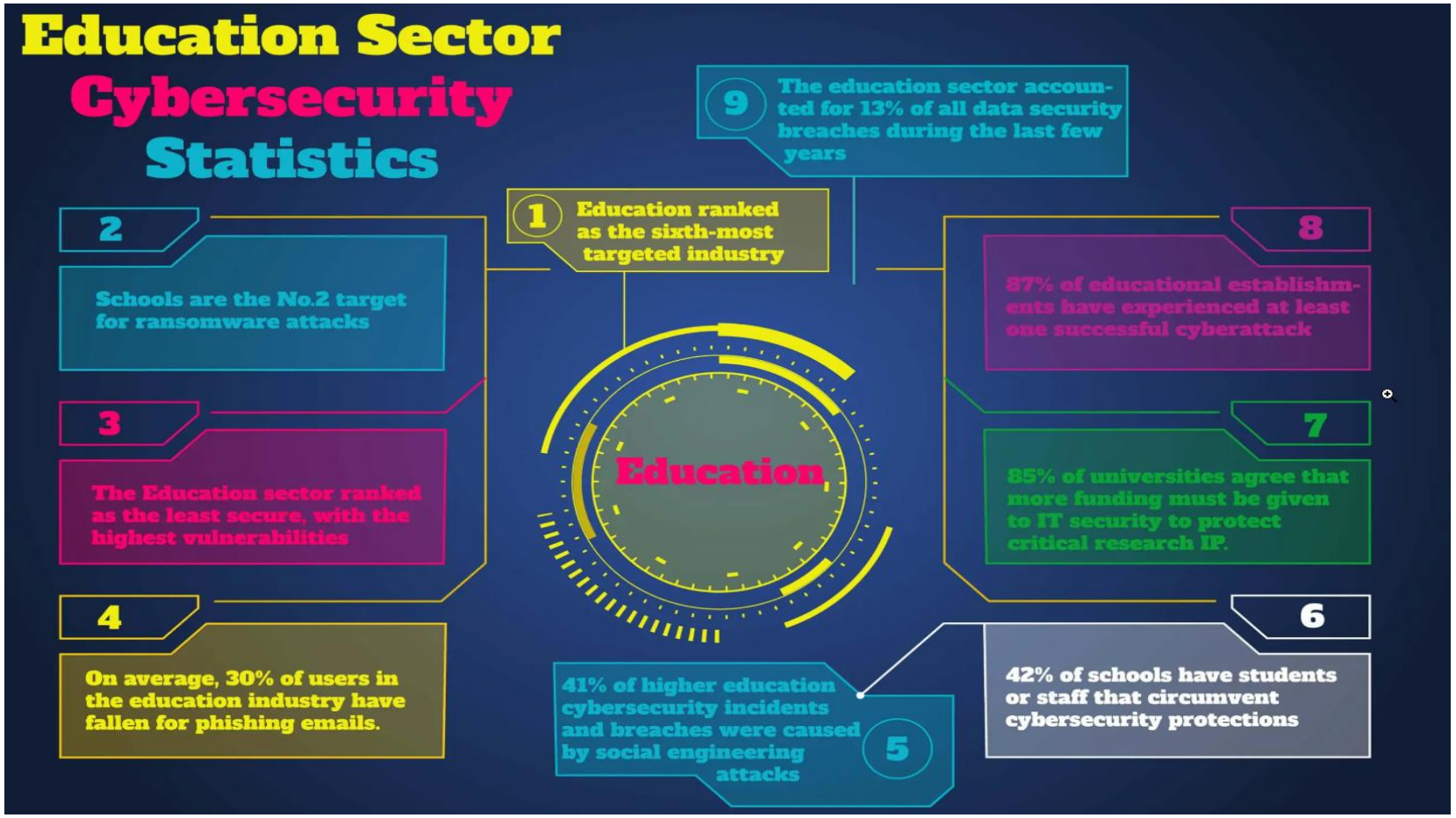
Challenges Education Sector



Post Covid Hybrid work

- Primary communication via email.
- Use of personal devices.
- Working from a café or a using public Wi-Fi.
- Printing documents at home.
- Carrying paper home and back.
- Finding workarounds for common tasks.

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Security Awareness - Social Engineering

- The process of deceiving people by preying on their emotions, usually empathy or fear, to obtain information.
- It's easier to get a password from a person than it is to hack into a system to obtain it.
- Security is everyone's responsibility, each of us play an important role.

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Social Engineering - Methods

- Be aware of:
  - Shoulder surfing
  - Dumpster diving
  - Pretexting
  - Phishing
  - Baiting
  - Quid Pro Quo

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Phishing

Attempt to gather confidential or personally identifiable Information (PII) through fraudulent emails that appear legitimate.

- Do not open unknown attachments.
- Do not click on links in an unknown email.
- Do not reply to requests for PII from people whom you do not know.
- Do not reply or forward chain emails.

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Phishing

Business Email Compromise (BEC)

Facebook and Google lost $121 Million collectively between 2013 and 2015.

Perpetrators setup a fake company named "Quanta Computer", same name as a real hardware supplier and sent convincing looking invoices.

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Ransomware

- Ransomware is a type of malware designed to encrypt or lock files on a device.
- Once encrypted, the malicious actors demand ransom to decrypt or unlock files,
- Often sent via spam emails with malicious attachments or via malicious website advertising.

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Ransomware (Cont.)

- University of California, San Francisco, paid $1.1 million to regain control.
- Higher education institutions spent $1.42 million to recover from ransomware events.
- College in Illinois closed after ransomware event.
- Only 2% of higher-ed institutions recovered all their data after paying a ransom, 61% of the data was recovered after paying a ransom.
- Takes several months to restore operations.

Ransomware (Cont.)

- Initially, there was only risk of data loss.
- Institutions with good backups were able to recover data without paying ransom.
- In recent years, If a ransom is not paid, the bad actors are now publishing that data online making it public.

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Multi-Factor Authentication

- Protects against password compromises.
- Most effective when used on separate device.
- Always watch carefully before approving.
- Susceptible to "MFA Fatigue" attacks where an attacker will send an endless stream of MFA requests using stolen credentials.

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GAP Access security

- Encryption for data in transit and at rest
- Idle session timeouts
- Simultaneous sessions not allowed.
- PII is not displayed unless needed.
- MFA (Multi-factor authentication) is enabled.
- Periodic password expiration.

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GAP Access security

- Need based access.
- Principal of least privilege.
- GAP Access User Verification.

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Compliance requirements

(1) The Data Processing Confidentiality Act (30 ILCS 585/1 *et. seq.*) requires users to treat the data with the same confidentiality requirements as ISAC and any violation will be subject to the same consequences as ISAC.

(2) The Identity Protection Act (5 ILCS 179/1 *et. seq)*, regulates the collection and use of social security numbers ensuring all requirements for social security number protections are met.

(3) The Personal Information Protection Act, (815 ILCS 530/1 *et seq*.), requires data collectors to notify the Illinois residents if there has been breach in the data collector's computer systems.

(4) The Family Educational Rights and Privacy Act (FERPA) of 1974, as amended, (20 U.S.C. 1232g), prohibits postsecondary institutions from disclosing confidential information contained in education records to any third party without the student's permission.

(5) Gramm-Leach-Bliley Act (GLBA) requires institutions to develop, implement and maintain a written information security program, designate employee(s) responsible for coordinating it, identify and assess risks to student information.

What does it mean to you?

- Follow your institution's security and privacy policies related to GAP Access.
- Do not download PII to personal devices.
- Do not share data with anyone who is not authorized to use it.
- Minimize printing, never leave documents un-attended, lock away when not in use.
- If printing, shred after use if not needed.
- Do not share passwords with anyone or display it.

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What does it mean? (Cont.)

- When not in use, log out from GAP Access or lock the computer.
- Be aware of phishing and social engineering attacks.
- If you suspect any incident, immediately take action to notify ISAC using established procedures.
- Do not use social media to communicate technical or security issues.
- Reset your password immediately.

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General Tips – Including for home

- Keep your systems updated
- Keep work and personal business separate
- At home, use a separate computer for financial transactions
- Install end point protection software, there are several free ones available
- Avoid browsing with **ADMIN** rights.
- Invest in a password manager.

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Free Security Awareness Training resources

- https://www.curricula.com/
- https://www.hhs.gov/sites/default/files/hhs-etc/cybersecurity-awareness-training/index.html
- https://www.sans.org/cyberaces/

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