A decorative graphic consisting of thin, grey, stylized circuit lines with small circles at the ends, extending horizontally from the left and right sides of the central black box.

CYBERSECURITY AWARENESS AND DIGITAL LITERACY

TROY BANNISTER

10 APR 2025



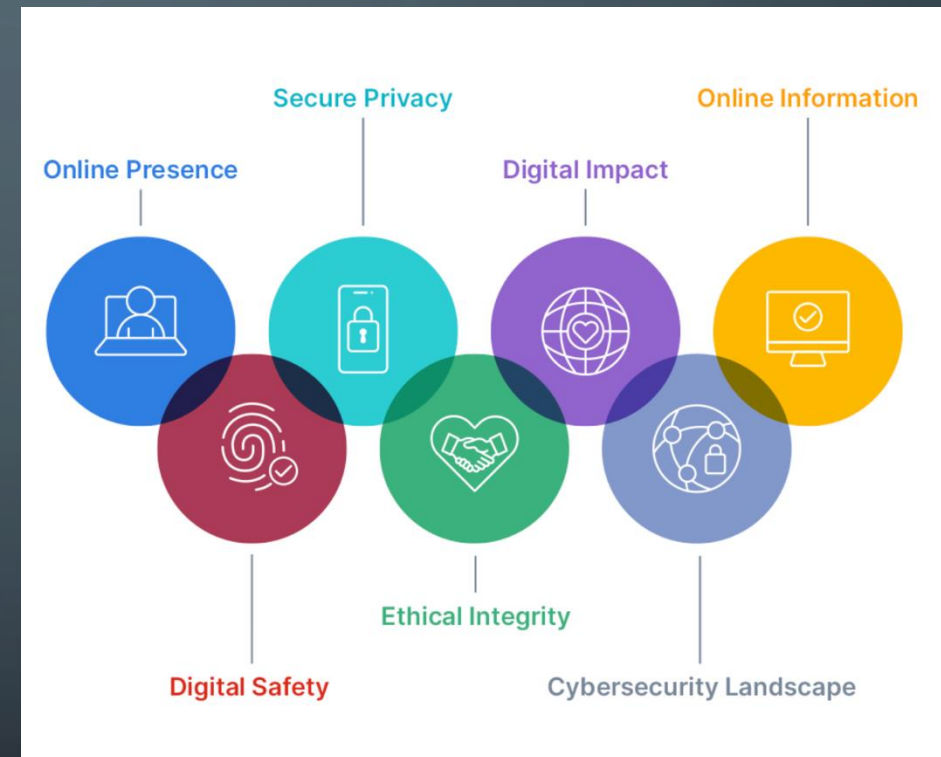
INTRODUCTION

- **Cybersecurity Awareness** – The ability of the user to recognize and avoid behaviors that could compromise cybersecurity and to act wisely and cautiously to increase cybersecurity. (NIST)
- Studies show that employee mistakes cause between 88-95% of data breach incidents. (Breachsense, n.d.)

"With all the awareness we hear and the increased tech, why do major data breaches still happen?"

TYPES OF AWARENESS (EDUCATION)

- Surface vs Deep Learning
- Surface:
 - Passwords
 - Cookies & Pop-Ups
 - Privacy Setting.
- Deep:
 - Social Engineering Recognition
 - Platform Trust
 - Geotagging Pictures



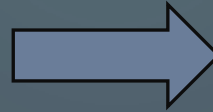
HUMAN BEHAVIORS (BEHAVIORAL PSYCHOLOGY)

- Human Behaviors
 - Click suspicious links or fall for phishing
 - Reuse Passwords
 - Ignoring Security Prompts
 - Data Breach Apathy
- Misinformation
 - Cognitive Bias
 - Echo Chambers
 - Fact-Checking Fatigue
- *“Only 33% of Americans changed their passwords after a known breach” (Cylab, 2020)*



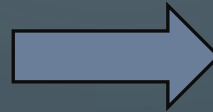
REFRAMING AWARENESS (SOCIAL CYBERSECURITY)

■ "Use Stronger Passwords"



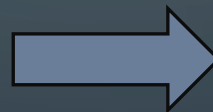
■ "Understand how password reuse leads to hacks"

■ "Don't click suspicious links:"



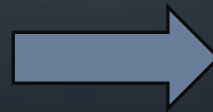
■ "Recognize social engineering tactics"

■ "Set your privacy settings."



■ "Understand cookies and permissions"

■ "Beware of scams"



■ "Be skeptical; why trust this link"

SUCCESSFUL AWARENESS PROGRAMS

- Finland – Early Media Literacy
 - Media literacy in the National Curriculum
 - Teaches critical thinking, not just safety tips.
 - *Finland teaches thinking before clicking*
- Estonia – Digital Citizenship
 - 2007 Cyber-attack caused National prioritization.
 - World leader in Digital Society with E-Estonia. (“Estonia: A Snapshot of Digital Skills,” 2023)
 - *Estonia builds trust through digital citizenship*



SUCCESSFUL AWARENESS PROGRAMS

- Google's "Be Internet Awesome"
 - Interactive games teaching safe online behavior.
 - Social learning through gamification
 - Emphasizes emotional regulation
- KnowBe4 Corporate Training
 - Simulated phishing and behavior based micro-training.
 - Reduces click rates and works well in corporate and public-sector settings.



COMPLIANCE TO CULTURE IN THE U.S.

Compliance Focus

Rule-Based thinking and Checking Boxes

One-and-Done Training

Awareness limited to workplace policies

Cultural Focus

Behavior –driven habits and decision making

Continuous learning and reinforcement

Everyday awareness in and out of work



CONCLUSION

- Cybersecurity awareness is a social behavior not just a technical skill.
- Social Sciences show us how to understand behavior and shift habits to create the foundation of a digitally safe lifestyle for individuals.
- Individuals make up the institutions that can impact policy, culture and long-term security.





QUESTIONS?



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