"Increased Cybersecurity Precautions for Faculty, Staff, and Researchers in Institutions of Higher Education"

Por Julia Urbina-Pineda

OUTLINE

.Introduction
.Problematics
.Recommendations
.Assessment
.Questions & Conclusions

WHAT IS
CYBER SECURITY?

La ciberseguridad es :
.Conjunto de políticas
.Herramientas
.Conceptos de seguridad.
.Métodos de gestión de riesgos.
.Formación
.Prácticas idóneas
que puedan utilizarse para proteger los activos de la organización y usuarios del ciberentorno.

WORLD ECONOMIC FORUM

Ciberseguridad es el elemento clave en:

- La toma se decisiones
- El diseño de Sistemas
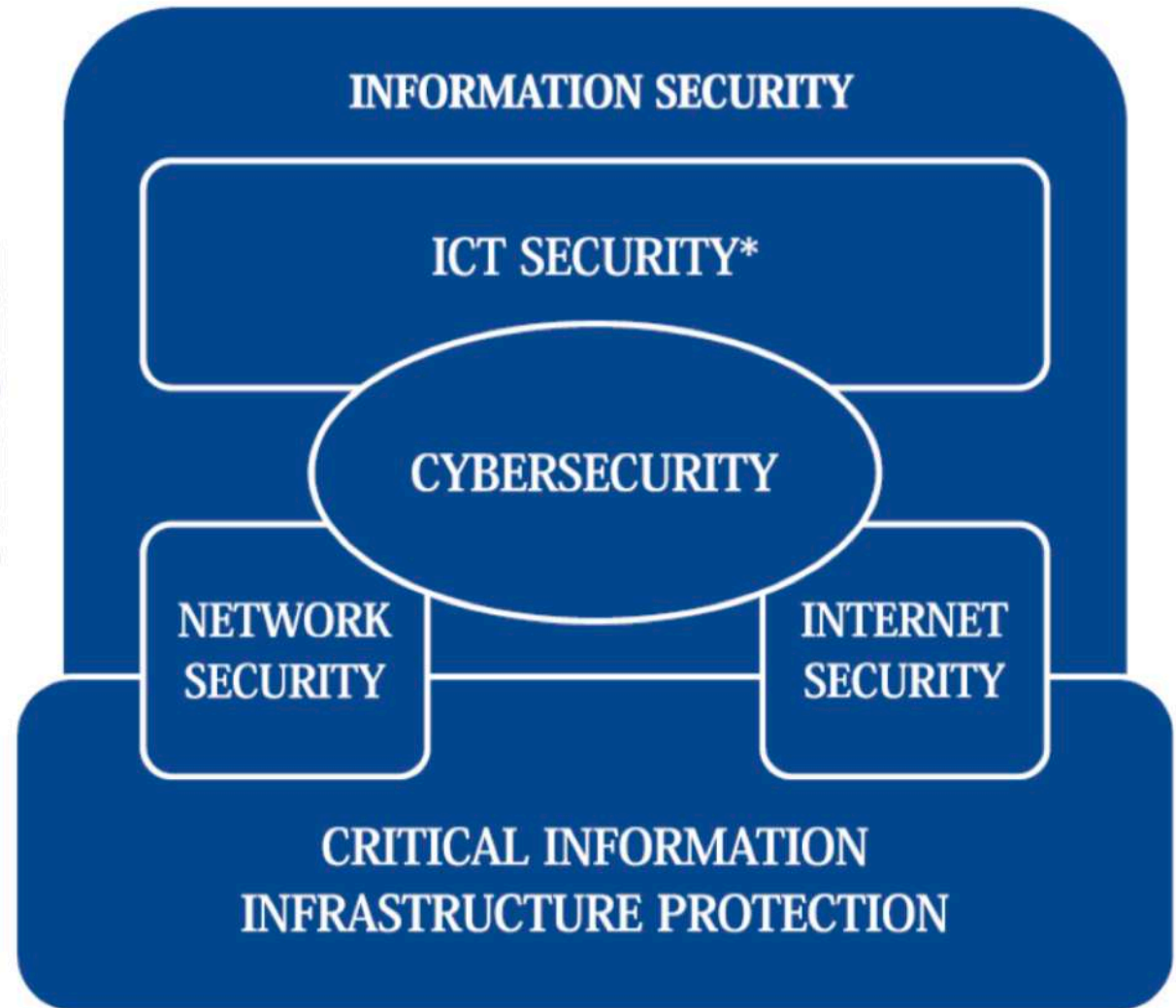 - El desarrollo de nuevas tecnologías en la 4ta. Revolución Industrial.

CyberSecurity is Strategy

Defining Cybersecurity

Dan Craigen, Nadia Diakun-Thibault, and Randy Purse

"Cybersecurity is the organization and collection of resources, processes, and structures used to protect cyberspace and cyberspace-enabled systems from occurrences that misalign de jure from de facto property rights."

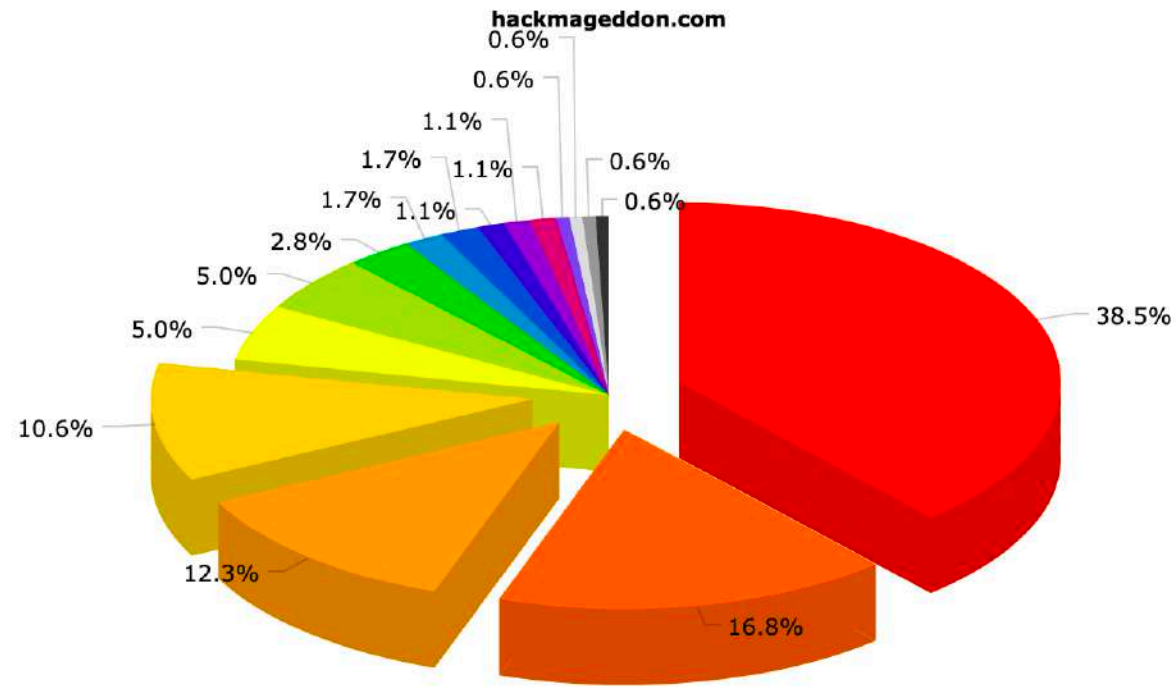ISO 27k family
ISO 270032
Cybersecurity

JS chart by amCharts

Attack Techniques (March 2020)

hackmageddon.com

0.6%
0.6%
1.1%
1.7%   1.1%   0.6%
1.7%   1.1%   0.6%
2.8%
5.0%
5.0%
                                        38.5%
10.6%

12.3%

16.8%

■ Malware	■ Account Hijacking	■ Targeted Attack
■ Unknown	■ Malicious Spam	■ Vulnerability
■ DDoS	■ Malicious Script Injection	■ Misconfiguration
■ Business Email Compromise	■ Fake Social Network Groups/Pages	■ Credential Stuffing

Targets (March 2020)

hackmageddon.com

Pie chart segments:
- 25.1%
- 21.2%
- 11.2%
- 7.3%
- 5.6%
- 4.5%
- 4.5%
- 3.9%
- 3.9%
- 2.2%
- 2.2%
- 1.7%
- 1.7%
- 1.7%
- 1.1%
- 1.1%
- 0.6%
- 0.6%
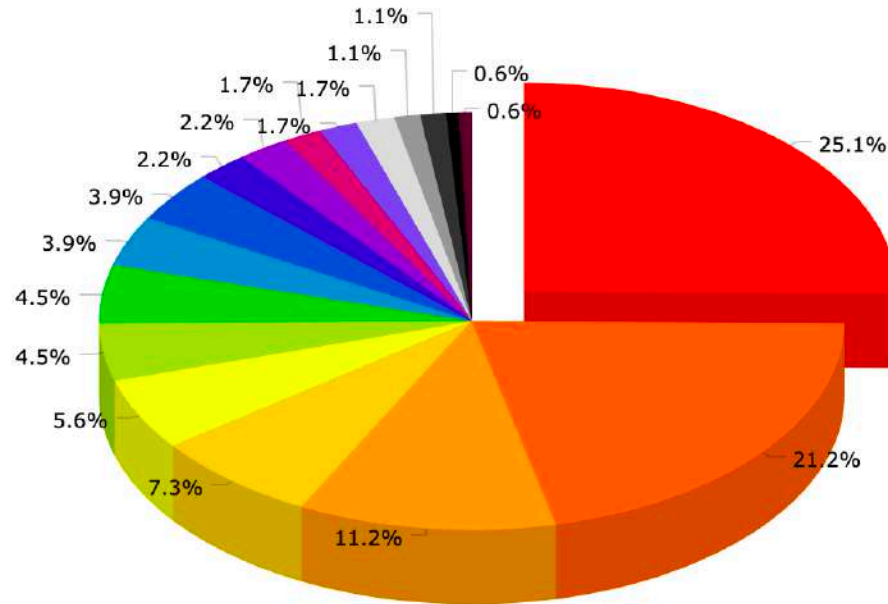
Legend:
- Individuals
- Multiple Industries
- Public administration, defence, social security
- Human health, social work
- Financial, insurance
- Wholesale, retail trade
- Manufacturing
- Education
- Information and communication
- Fintech
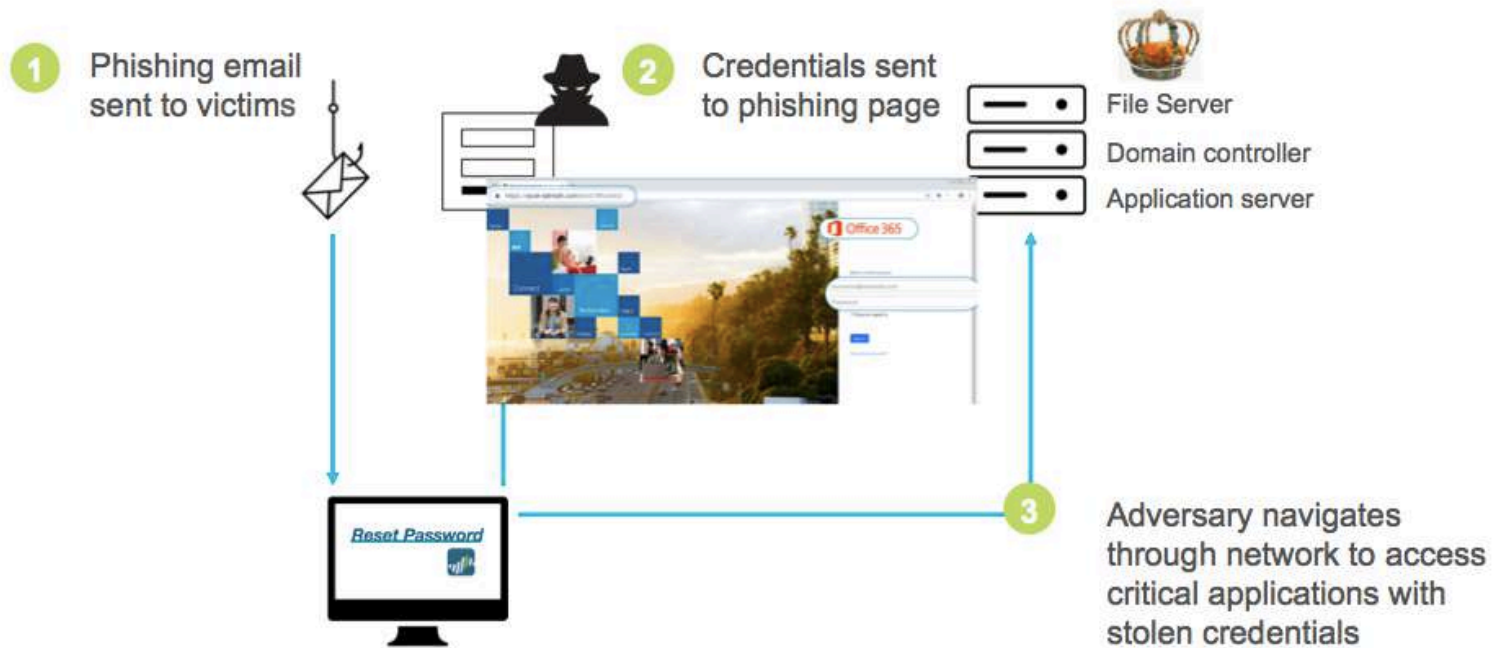- Arts, entertainment, recreation
- Other service activities

Ransomware due to Pishing Scam

90% of companies vulnerable to email spoofing
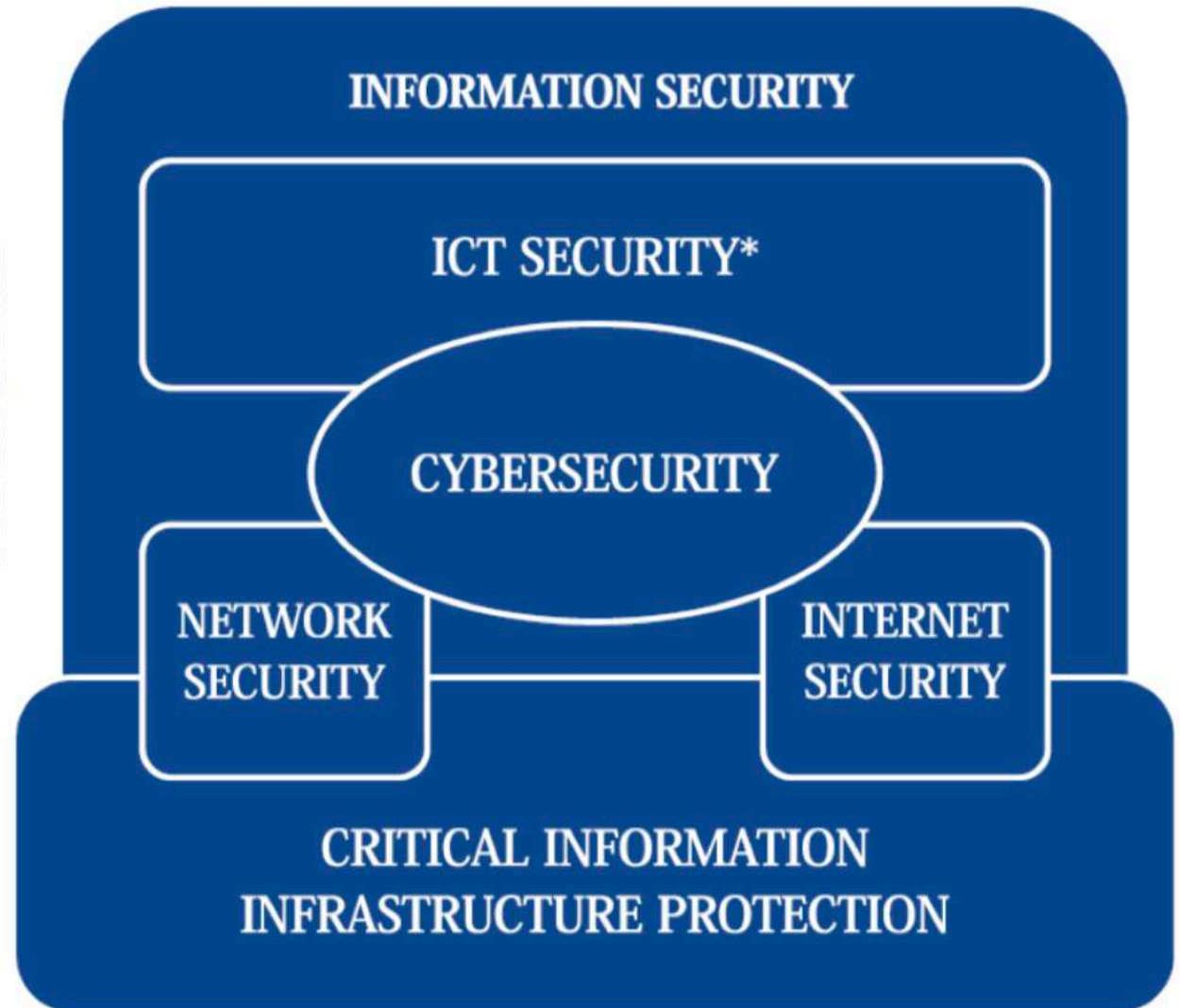
ANATOMY OF A CREDENTIAL THEFT-BASED ATTACK

1 Phishing email sent to victims

2 Credentials sent to phishing page

File Server

Domain controller

Application server

3 Adversary navigates through network to access critical applications with stolen credentials

OUTLINE

.Introduction
.Problematics
.Recommendations
.Assessment

Usar Standard

ISO-27000

INFORMATION SECURITY

ICT SECURITY*

CYBERSECURITY

NETWORK SECURITY

INTERNET SECURITY

CRITICAL INFORMATION INFRASTRUCTURE PROTECTION

Adoptar un Marco de Referencia en Ciberseguridad NIST 1.1

NIST Cybersecurity Framework

Identify
- Asset Management
- Business Environment
- Governance
- Risk Assessment
- Risk Management Strategy

Protect
- Access Control
- Awareness and Training
- Data Security
- Info Protection Processes and Procedures
- Maintenance
- Protective Technology

Detect
- Anomalies and Events
- Security Continuous Monitoring
- Detection Processes

Respond
- Response Planning
- Communications
- Analysis
- Mitigation
- Improvements

Recover
- Recovery Planning
- Improvements
- Communications

How many browser tabs do you have open right now?

a. Just this one.

b. I've lost count.

c. A few.

d. I don't know what a tab is.

A friend is coming over to watch a movie. Where are you most likely to watch it?

a. On whatever site it streams on for free.

b. On a user-generated video platform like YouTube.

c. On a streaming service like Netflix, Hulu or Crave.

d. From a digital catalogue, like on iTunes, or your local library.

Which security question do you usually pick?

a. What is your pet's name?

b. What was the name of your primary school?

c. What is the name of the hospital you were born in?

d. What is the first name of the first person you kissed?

Your phone's battery is running low! How do you charge it?

a. Ask to borrow a charger from someone nearby.

b. Use my own portable battery charger and cable.

c. Wait till I get home.

d. Use a free public charging station.

What do you usually share on the internet?

a.   Interesting articles, funny memes, whatever I think other people should see.

b.   Nothing.

c.   I essentially livestream my entire life.

d.   Updates related to my professional life.

You're hosting a party at your house. How do you get the word out?

a. Create a private event and invite people.

b. Direct message, text or email.

c. Make a public post and tag everyone in it.

d. Send an end-to-end encrypted message.

"Updates are ready to install."

a. Drop everything and update right now.

b. Don't remind me again.

c. Remind me tomorrow.

d. I'll do it once I finish this thing.

What does the desktop of your computer look like?

a. Full of screenshots, random photos and downloads; I haven't seen the wallpaper in months.

b. Kinda messy sometimes but I think I know where the important stuff is.

c. I keep it more organized than a library; everything is exactly where it should be.

d. There's nothing there. I like seeing my wallpaper.

How do you back up your computer?

a. I use an external hard-drive, every once in a while.

b. I make folders of my desktop on my desktop.

c. I keep everything in the cloud or schedule backups to the cloud.

d. I don't need to keep a backup.

Who knows the password to your main email account?

a. Only my password manager.

b. Some of my family members.

c. Just my best friend.

d. Only I do.

How do you unlock your phone?

a. Pattern.

b. Fingerprint or face.

c. It's always unlocked.

d. Pin.

How many passwords are you reusing?

a. I have one where I switch up characters and add in numbers and symbols here and there.

b. All of my passwords are completely randomly generated.

c. Just the one.

d. I have two or three I cycle through.

You're signing up for a new service and need to create a username. Which do you choose?

a. Completely random letters and numbers.

b. My email address.

c. The username I use on every account.

d. My initials.
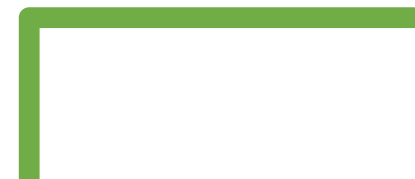
IoTSI Mexico Chapter

•SECURITY THROUGH EDUCATION

IoTSI Mexico 🇲🇽

Servicios de DISEÑO DE PROGRAMAS Y
CONTENIDO ACADEMICOS
BACHILLERATO, LICENCIATURAS,
MAESTRÍAS Y DOCTORADOS

.MATERIAS PARA ESPECIALIDAD
.MATERIAS PARA CERTIFICADO.
DIPLOMADOS
.CERTIFICACCIÓN SCCISP OFICIAL
TRANING CENTER
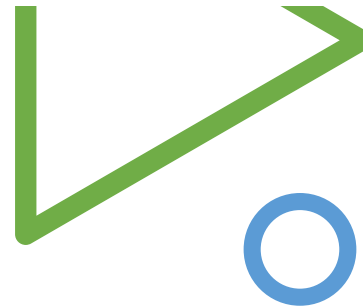
CERTIFICACCIÓN SCCISP OFICIAL TRANING CENTER

The SCCISP Certification offers professional recognition, and an industry recognized credentialed career pathway for Cyber and Privacy professionals working within the IoT-IIoT Smart Cities and Critical Infrastructure sectors.

- Welcome to the SCCISP Foundation Course
- Introduction to IoT Systems and Technologies
- Industry 4.0 and 5G
- Resilience In A Connected World

- Privacy and Data Protection
- Industrial Control Systems
- Security Architecture
- IoT Security Pentesting
- Physical Security
- IoT Security Institute Framework
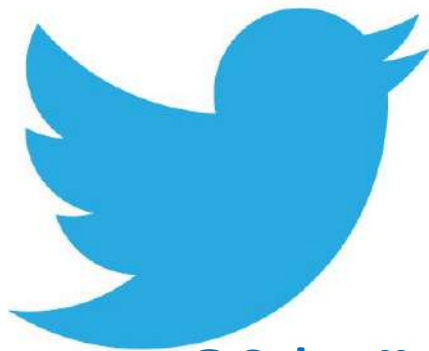
@CyberIIoT

CyberIIoT

facebook.com/CyberIIoT2

/juliaurbinapineda

julia@cyberiiot.com

IoTSI Mexico Chapter

https://www.linkedin.com/groups/13860813/

School of Cybersecurity Training
by CyberIIoT

https://www.linkedin.com/company/65517086/