

By: Milton A. Massaquoi

By: Milton A. Massaquoi

# Introduction - Why cybercrime ?



# Short video of the history of cybercrime

- <https://youtu.be/yWMmxEfOboM?si=DEhkQ-zqSSHK-F7J>

# What is it?



## Cybercrime

- Illegal activities
  - Uses computers, internet, or networks



# Importance of Cybercrime



Threat to Personal  
Security

Stealing of personal  
data



Economic Impact

Costs billions of  
dollars



National Security  
Concerns

Political inability and  
economic damage



Legal and Ethical  
Challenges

Balance of  
individuals rights

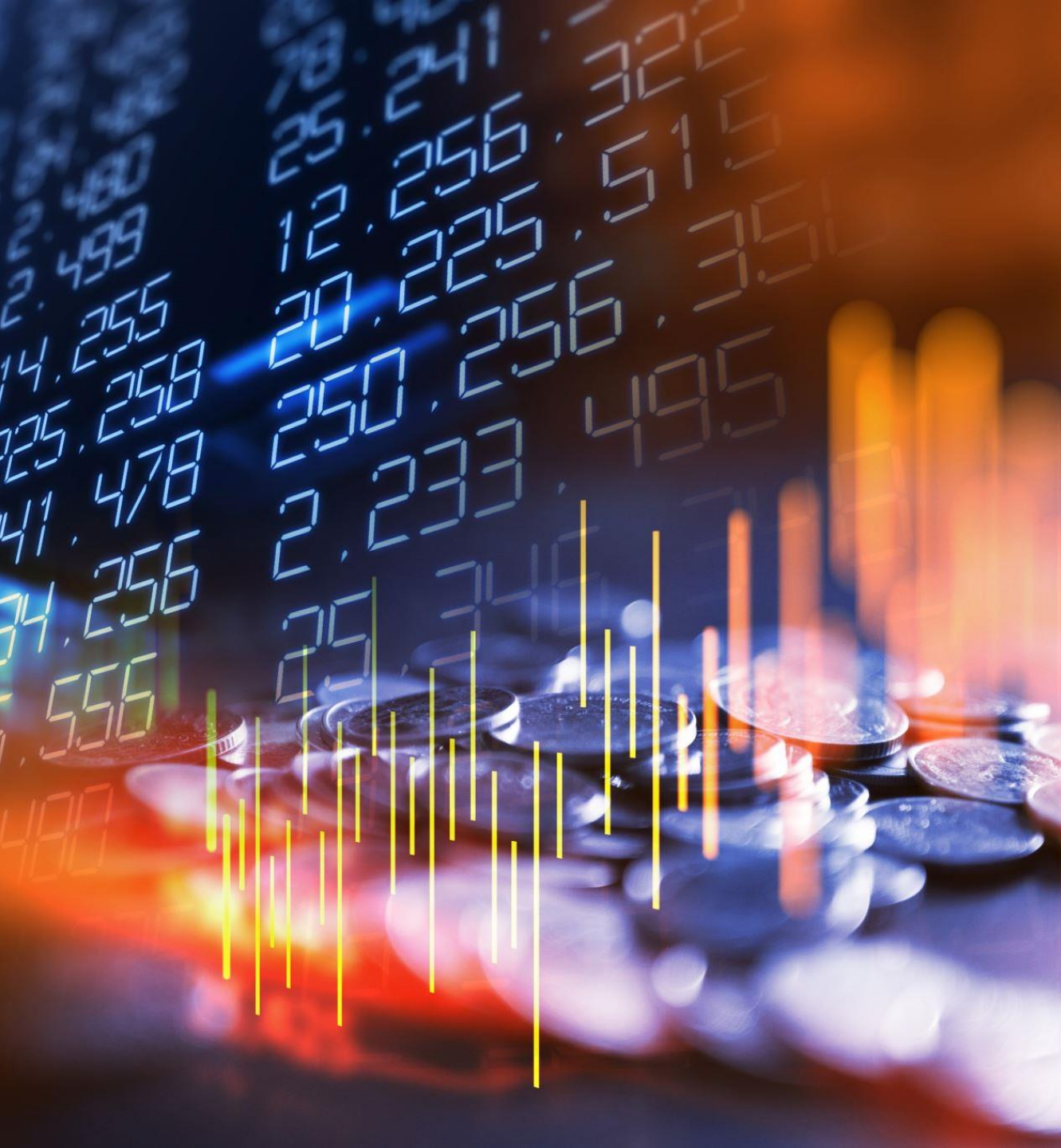
# Types of Cyber Crime

Crimes that are committed over the internet

Some examples:

- Hacking
- Malware
- Identity Theft
- Social Engineering
  - User is tricked into doing something dangerous
- Software Piracy
  - Selling computers pre-loaded with illegal software





# Impacts of Cyber Crimes on Society

- Direct Financial losses
- Data Theft and Privacy Breaches
- Reputational Damage
- Increased Security Cost
- Cloud Security Challenges
- Loss of Privacy
- Psychological impact

# Causes or Reasoning of Cyber Crime



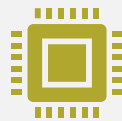
Financial Gain



Technological Advancements



Lack of Security Awareness



Dependence of Technology



# WannaCry Ransomware Attack – May 12, 2017

- Large-scale cyberattack
  - Computers worldwide
- 300,000 computers in 150 countries
- Billions of dollars in damage
- Demanded ransom payments in Bitcoin
- Marcus Hutchins
  - Helped prevent further spread
- Originated from North Korea



# Equifax Data Breach – Sept 2017

What happened?

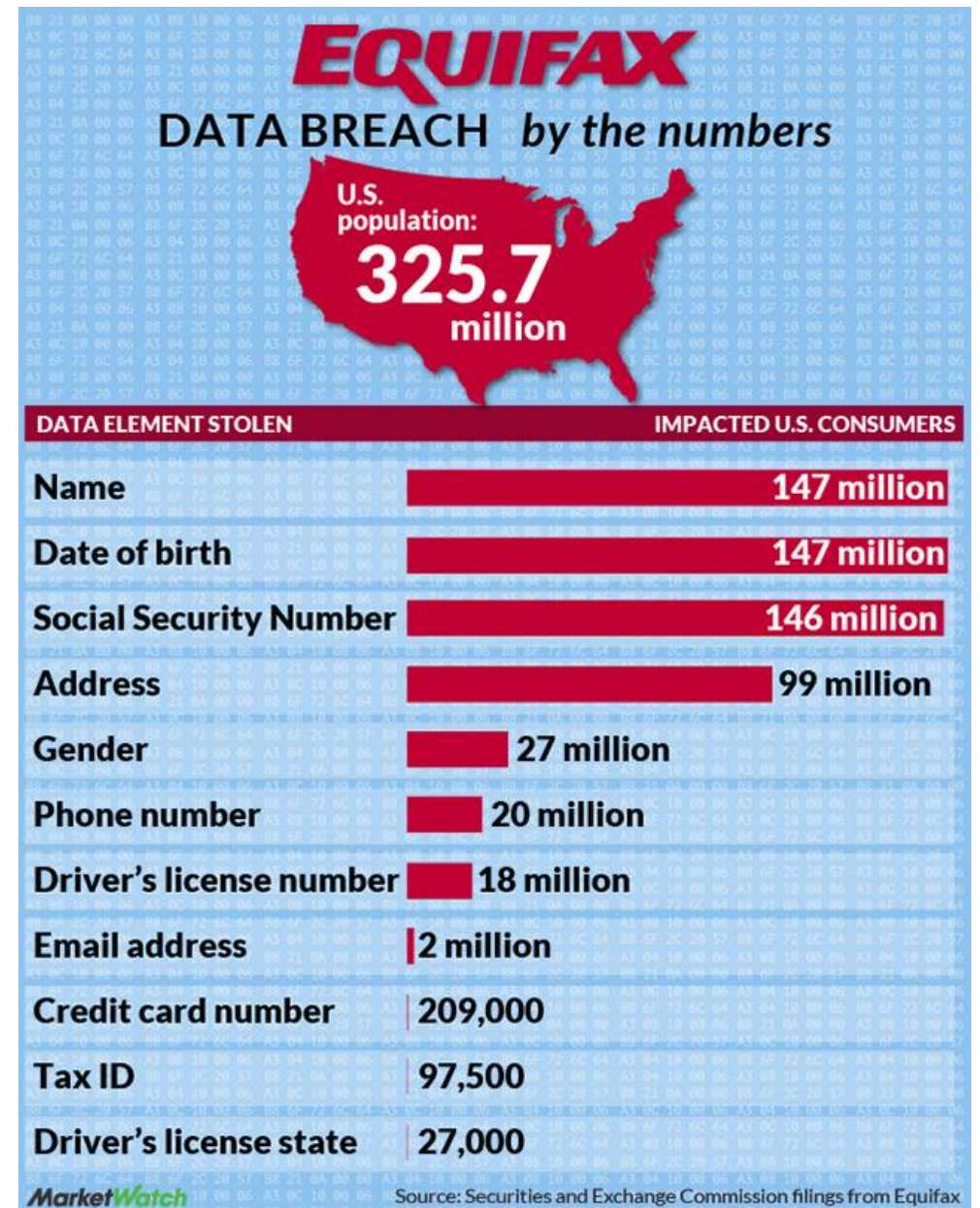
- Hackers stole sensitive data of 147 million

Impact

- One of the worst data breaches
- Equifax paid \$700 m in settlements

How?

- Apache struts was exploited





# Yahoo Data Breach - August 2013

- Massive security incident
- Compromised personal data
- 3 billion users
  - At first 1 billion
  - Every Yahoo user
- Hackers stole person info

## FAST FACTS

### Data Breach Affects 500 Million Yahoo Accounts

**WHAT WAS STOLEN?** Information from 500 million accounts, which may include names, email addresses, phone numbers, dates of birth, hashed passwords, and encrypted or unencrypted security questions and answers.

**WHO IS AFFECTED?** Yahoo Mail, Yahoo Finance, Yahoo Fantasy Sports, and Flickr account holders.

**WHEN DID IT HAPPEN?** The user account information was stolen in late 2014

**WHAT SHOULD USERS DO?** Yahoo has sent notifications to users. Those who haven't changed passwords since 2014 should do so.



# Ways to Protect yourself



Strong and Unique  
Passwords



Keeping security  
software updated



Be careful with suspicious  
links or attachments

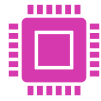


# Business and Organizational Security



## **Training employees in security principles**

Basic security practices and policies



## **Protect info, computers, and networks**



## **Firewalls for internet connection**

Prevent outsiders from getting in



## **Create backup copies**

Backup important information



## **Secure Wi-Fi networks**

Secure, encrypted, and hidden



## **Passwords and authentication**

# Government and Legal Measures



Computer Fraud and  
Abuse Act (CFAA)

Criminalizes unauthorized  
access



FBI Cyber Division

Investigates cyber attacks



Data Protection and Privacy Laws



California Consumer  
Privacy Act (CCPA)

Consumers rights over their  
data



Health Insurance  
Portability and  
Accountability Act (HIPAA)

Protects healthcare

# Key Takeaways

- Cybercrime is evolving
- Everyone can be affected
- Awareness and proactive measures



# Sources

- <https://www.investopedia.com/financial-edge/0112/3-ways-cyber-crime-impacts-business.aspx>
- <https://indonet.co.id/factors-causing-cyber-crimes-to-easily-occur/>
- <https://www.databank.com/resources/blogs/why-do-people-commit-cyber-crimes/>
- <https://www.fcc.gov/communications-business-opportunities/cybersecurity-small-businesses>  
<https://www.ftc.gov/enforcement/refunds/equifax-data-breach-settlement>



# Sources continued...

- [https://usa.kaspersky.com/resource-center/threats/ransomware-wannacry?srsId=AfmBOoqXYKwexS6\\_5AfIQyBJtsrcar3JxoynWx-Y9NksF3dQhs\\_v4YOv](https://usa.kaspersky.com/resource-center/threats/ransomware-wannacry?srsId=AfmBOoqXYKwexS6_5AfIQyBJtsrcar3JxoynWx-Y9NksF3dQhs_v4YOv)
- <https://www.ftc.gov/enforcement/refunds/equifax-data-breach-settlement>
- <https://www.strongdm.com/what-is/yahoo-data-breach>
-