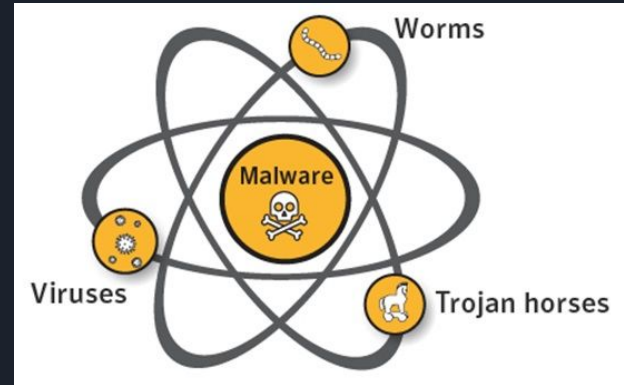# Malware

By Ethan Ellison

What is Malware?

- Malicious Software

- It is used to make a computer behave in whatever way an attacker wants

- There are many types of Malware:

  - Worms
  - Viruses
  - Trojan Horses
  - Ransomware
  - Spyware
  - Bots/Botnets
  - Rootkits
  - Keyloggers

Credit to: https://itsecurity.blog.fordham.edu/2017/10/18/what-is-malware/

Background Video

Malware

Difference Between Computer Viruses, Worms and Trojans

What is the Problem?

- Malware is unethical
- Billions of people are hurt by malware every year
- Malware hurts the economy
- Ransomware steals money from individuals and businesses
- Spyware steals personal information and can ruin personal lives
- Bots/botnets can hurt entire networks and systems

Credit to: https://www.statista.com/statistics/873097/malware-attacks-per-year-worldwide/
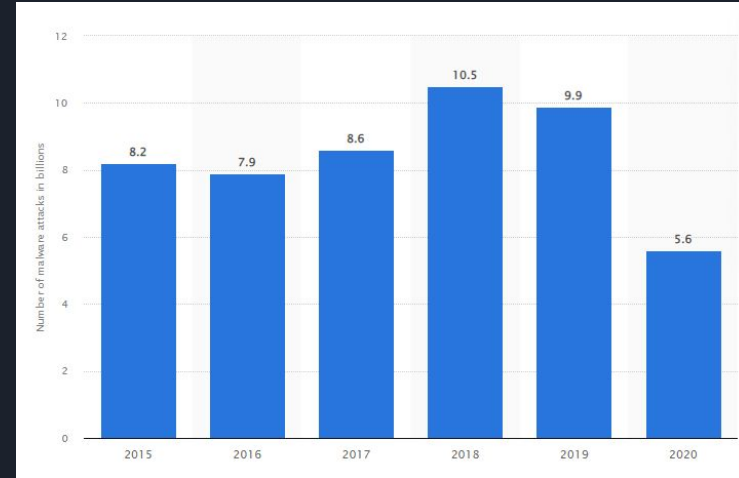
Who is Affected by Malware?

- Businesses and individual people can be targets

- Billions were recorded to be attacked in the years between 2015-2020

- Cybercrime has increased due to quarantine

- Malware attacks can affect more than just those attacked

- In May of 2021 the Colonial Pipeline system was attacked

- Many states experiences a gas shortage because of this attack

Credit to: https://www.fox13news.com/news/gas-shortages-not-expected-in-central-florida-despite-pipeline-disruption

What is so Bad About Ransomware?

- Ransomware can affect everyone with valued data
- Ransomware is effectively stealing
- It can disrupt usual business functions and affect critical services
    - The Baltimore County Public Schools system was attacked in 2020
    - This caused the cancellation of classes for 2 days

What is so Bad About Spyware?

- Spyware can affect everyone

- Spyware is stealing

- Can lead to identity theft

- Can cause a lot of issues for those attacked

- Accounts can be lost and money can be stolen

- Causes mistrust in the internet

Credit to: https://www.42gears.com/blog/how-an-mdm-solution-can-protect-endpoints-from-spyware-and-adware/

What is so Bad About Bots/Botnets?

- Bots and Botnets can affect everyone
- Attackers can do a lot with access to your computer
- Botnets can take down entire networks
- Can make systems more vulnerable
- Effectively stealing someone's computer

Credit to: https://jpdias.me/botnet-lab//anatomy/types-of-attacks.html
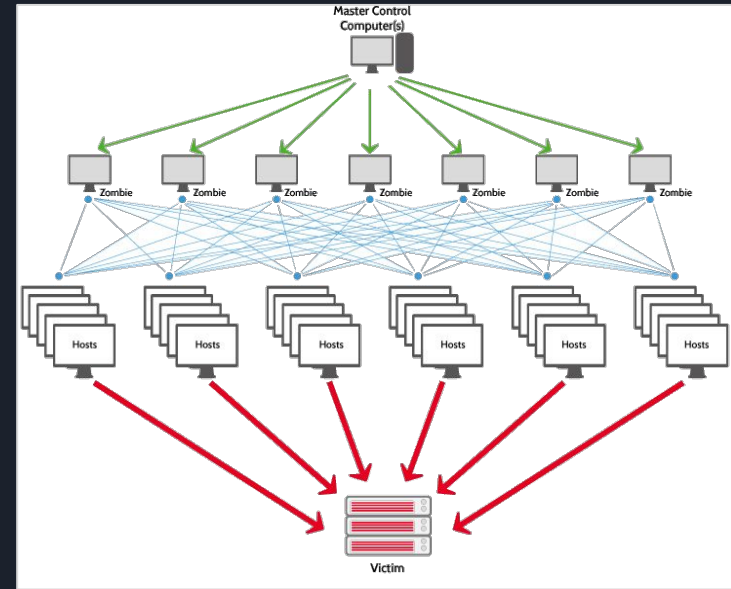
Why is Malware an Ethical Issue?

- Malware hurts people on a large scale

- Many aspects are already ethical issues

    - Stealing

    - Identity theft

Questions?