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# Cyber Terrorism

Causes and Effects on Our World

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# Cyber Attacks

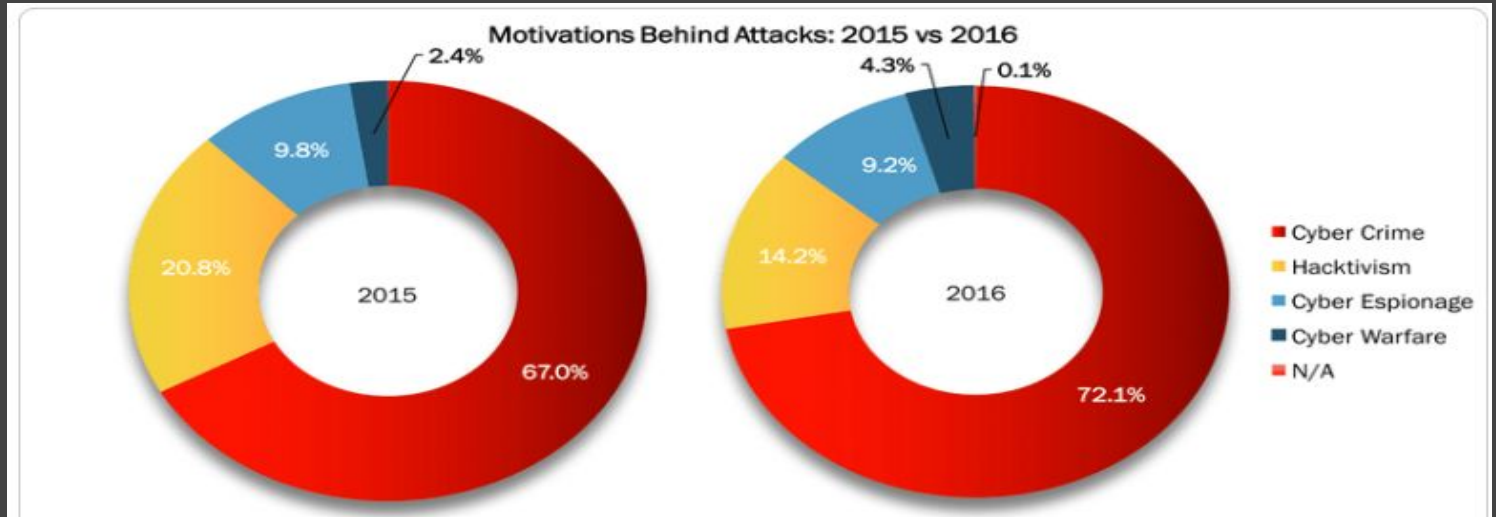
# Cyber attacks happen more often than people may think

## Cyber attacks include:

- Cybercrime
- Hacktivism
- Cyber Espionage
- Cyber Warfare

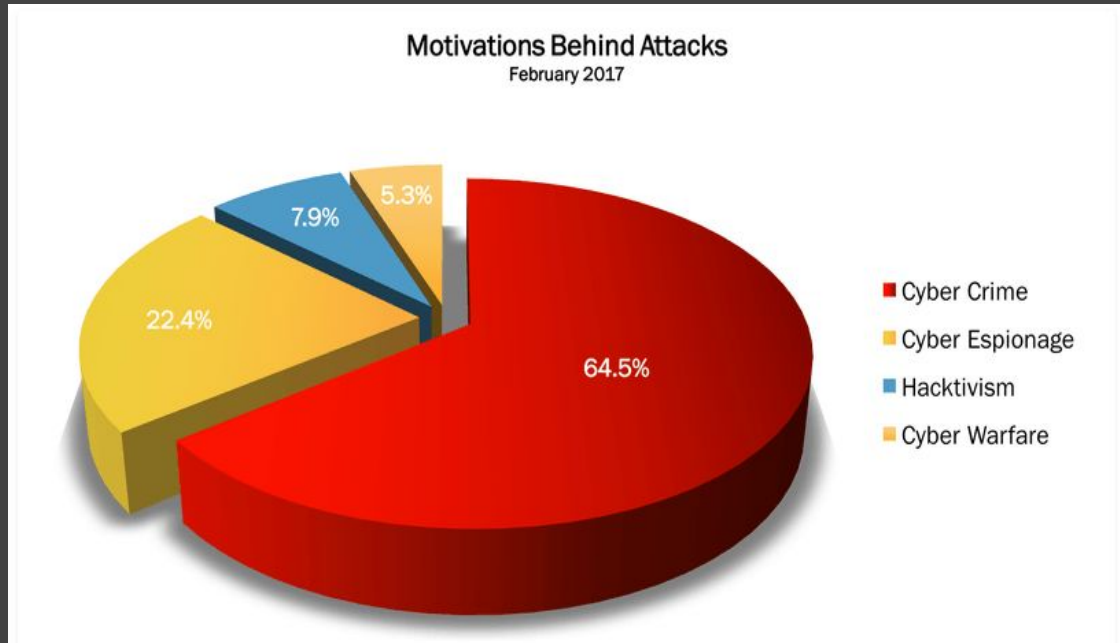


# Cyber attack statistics 2015 - 2016



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# Statistics as of February 2017



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# What is Cyber-terrorism?

According to the U.S. Federal Bureau of Investigation, Cyber-Terrorism is any premeditated, politically motivated attacks against:

- Data
- Computer systems
- Computer Programs

Resulting in damages on non-combatant targets such as the banking industry, power plants, military installations, air traffic control centers and water systems by clandestine agents.

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# Cybercrime

Cybercrime is an umbrella term for the various crimes committed World Wide Web, such as:

- Identity theft and financial resources
  - Cyberstalking
  - Cyberbullying
  - Cyberpornography
  - The spread of malicious software code such as computer viruses
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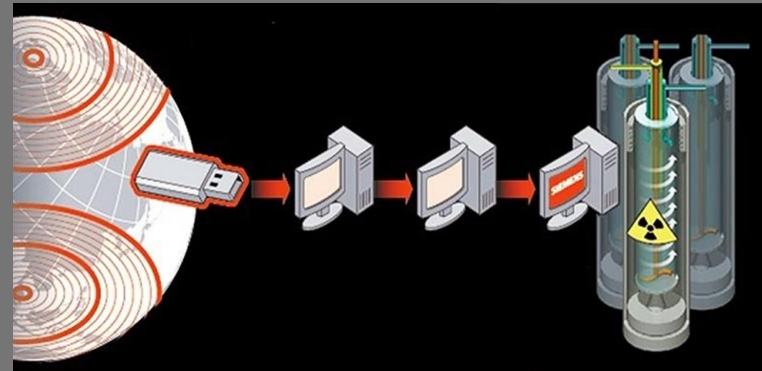
# Blackout Day NYC

- On August 14th, 2003 New York City was hit with a cyber attack
- The hackers attacked NYC power lines
- This Virus impacted traffic, airline power, and water systems
- This was due to a self active virus named "Blaster"
- This virus was identified and destroyed after 3 days of no power
- After 3 months of searching for the source of the virus the government traced it back to the Russian government



## — Stuxnet Worm Attack on Iranian Nuclear Facilities

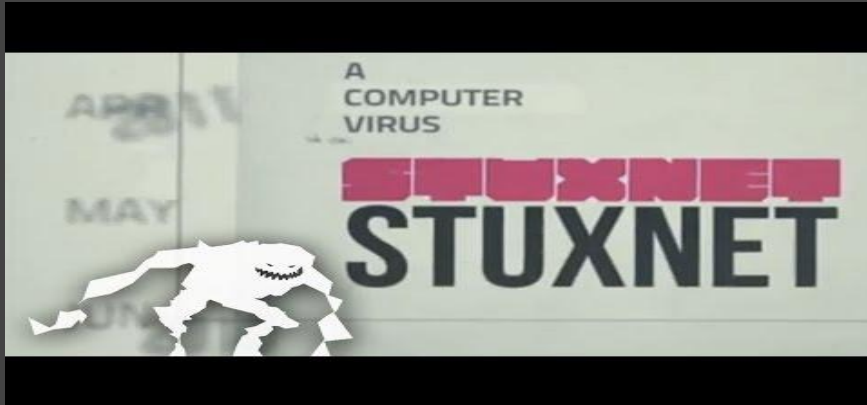
- Stuxnet was a 500-kilobyte computer worm that infiltrated numerous computer systems on Iranian Nuclear Facilities..
- Stuxnet operated in three steps. First, it analyzed and targeted Windows networks and computer systems. Next, the machine infiltrated the Windows-based Siemens Step7 software. Lastly, by compromising the Step7 software, the worm gained access to the industrial program logic controllers.





# Stuxnet Worm Attack on Nuclear Facilities Cont.

- Over fifteen Iranian facilities were attacked and infiltrated by the Stuxnet worm. It is believed that this attack was initiated by a random worker's USB drive. One of the affected industrial facilities was the Natanz nuclear facility.
- It is currently estimated that the Stuxnet worm destroyed 984 uranium enriching centrifuges.
- It is currently agreed that this worm was designed as a cyber weapon to attack the development of Iran's nuclear development program.



# Who is Ardit Ferizi?

- Ardit Ferizi was born in 1995, in the Kosovo city of Gjakova.
- He became a student in Malaysia to study computer sciences. He then began hacking at the same time.
- Ardit is affiliated with the famous KHS (Kosova Hacker's Security). He is also affiliated with the islamic state.
- According to reuters, 100 - 200 kosovars have joined isis, with 40 killed so far.
- This case is considered a milestone for the fight against online terrorism. First time a man has been charged with cyber terrorism.



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## Why is his case important?

- Ardit Ferizi was arrested in September of 2015.
  - He was providing intel to ISIS militant Junaid Hussain. The data he hacked included names, email addresses, passwords, locations, and phone numbers of 1,351 military and other government personnel.
  - They planned to use this data to plan out and hit these US soldiers by surprise attack.
  - Junaid Hussain was known largely by ISIS for his cyber abilities. He was killed in an airstrike sent by the United States government in August of 2015.
  - Ardit Ferizi was extradited to the United States to face charges for cyber terrorism. He received 20 years in jail. He is the first case where a terrorist hacker was extradited to the US and convicted.
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# How does Cyber terrorism impact you and your future?

**Air Traffic**: Control towers could potentially get hacked and affect plane routes causing crashes

**Banking Systems**: These systems could be violated and a countless number of accounts could be wiped out

**Bombs and electronic equipment**: This could also be hacked and detonated automatically by remote

**Water Systems**: City wide water systems have filters that could be tampered with as well



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# How Can We Prevent it ?

- Identify the terrorist
  - Emails
  - Over the phone information
  - Secure passwords
  - Anti- Virus
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