What is Cyber?
• **Cyberspace Operations** - CO comprise the military, national, and ordinary business operations of DOD in and through cyberspace.

• **DODIN Operations** - The DODIN operations mission includes operational actions taken to secure, configure, operate, extend, maintain, and sustain DOD cyberspace and to create and preserve the confidentiality, availability, and integrity of the DODIN.

• **Defensive Cyber Operations** - DCO missions are executed to defend the DODIN, or other cyberspace DOD cyberspace forces have been ordered to defend, from active threats in cyberspace.

• **Offensive Cyber Operations** - OCO are CO missions intended to project power in and through foreign cyberspace through actions taken in support of CCDR or national objectives.
I say “Cyber,” you think...
You say Cyber I think....

Alice

Binary

ISP  DNS  IP
MAC  HSH  DSE  CDN
BLC  RTG  PRT

Protocols

Bob
Information Technology (IT), Operational Technology (OT) and Platform IT (PIT)

Traditional IT

Operational Technology*

Platforms & Weapons

*OT = Operational Technology – Computer controlled physical processes such as ICS (i.e. power, water) logistics (i.e. fuel systems) or other control systems (i.e. building automation, security alarms)
• Information Technology (IT)
  • Consists of those devices and technologies used in traditional
    business activities such as word processing, email, data
    presentations and spreadsheet development

• Operational Technology
  • Consists of those systems, devices and software typically referred
    to as Industrial Control Systems (ICS) or Supervisory Control and
    Data Acquisition Systems (SCADA).

• Platform Information Technology
  • Consists of those systems, devices and software that execute air
    and space missions as independent segments of a network or as
    a connected piece of larger network.

Platform IT

1M+ Lines of Code

14M+ Lines of Code

18M+ Lines of Code

9M+ Lines of Code

100M+ Lines of Code
Operational Technology

HVAC

CRYSTAL

BULK FUEL

SECURITY

WATER

AIRFIELD LIGHTING
Activities in Cyberspace
**Cyber Espionage**: The act of securing information of a military or political nature that a competing nation holds secret.

**Cyber Crime**: Any interference with the functioning of a computer system, with fraudulent or dishonest intent of procuring, without right, an economic benefit for oneself or for another person.

**Cyber Disruption**: The serious hindering without right of the functioning of a computer system by inputting, transmitting, damaging, deleting, deteriorating, altering or suppressing computer data.

**Cyber War**: A political decision.

*Derived From Council of Europe Convention on Cyber Crime*
Cyber operation, whether offensive or defensive, that is reasonably **expected to cause injury or death to persons or damage or destruction to objects.**”

(Tallinn Manual)

This could include:

- Sabotage
- Widespread destruction
- Death to persons

**Cyber Attack**