Computer Security and Reliability

Covering material from Chapters 7 and 8

Computers & Society (CPSC 430)

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Attacks: how mean computers hurt nice computers

- **How:**
  - Phishing
    - *Have you been targeted? Has an attack been successful?*
  - [Distributed] Denial of Service
- **Why:**
  - Cybercrime: professionalization of malware
    - renting botnets (DDoS; spam)
    - stealing credit card numbers, passwords
  - Cyberwarfare: states as actors or targets
    - North Korea vs USA gov, corporate sites (2009)
    - Russia vs Georgia during and after South Ossetia war (2008)
    - Stuxnet (2009-)
    - A variety of government, activist sites during Arab Spring (2011)
    - Anonymous

Electronic Money

- Financial transactions are increasingly moving online
- Advantages
  - easier transactions
  - easier access to credit
  - discourages black market economy
  - prevents businesses from having to carry cash floats
- Disadvantages
  - empowers a few corporations
  - less anonymity
  - security risks
- *Other advantages/disadvantages? What do you think?*

Blockchain

- Distributed ledgers offer an alternative approach to electronic money that works more like cash
- What is:
  - blockchain?
  - mining?
  - what stops someone from spending the same digital money twice?
  - what's an NFT
- But, the currency is incredibly volatile (and, not everyone even agrees that it makes sense to think of it as money)

What do you think? Should governments encourage blockchain-based currencies? Do you use them?

Course Evaluation

10 minutes to fill in course evaluation. It's at:

https://seoi.ubc.ca/evaluations

…Then we'll discuss:

"Self-driving cars should be allowed to operate on public roads once they have been shown to be at least slightly safer than the average human driver."