Computer & Network Security

Lecture 7-2

Computers & Society (CPSC 430)

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https://www.cs.ubc.ca/~kevinlb/teaching/cs430

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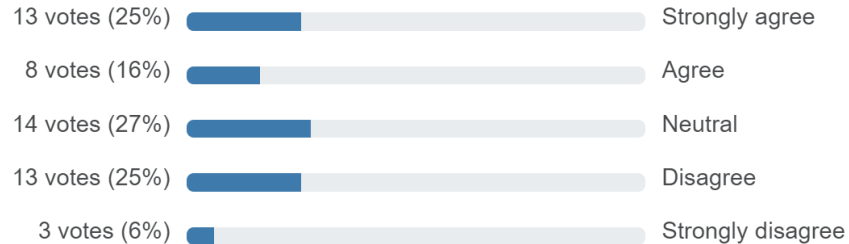
What do you think? Should governments encourage blockchain-based currencies? Do you use them?

Computer and Network Security

"Canadians should be able to vote online in federal, provincial and municipal elections."
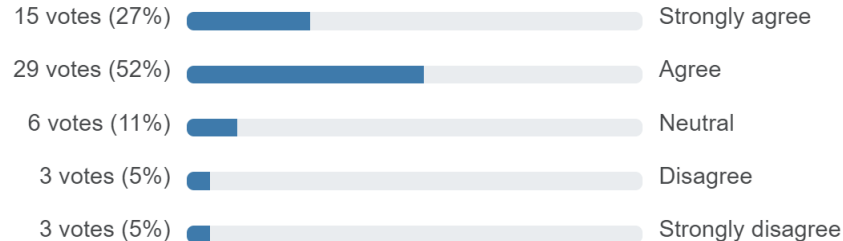
A total of 51 voter(s) in 1157 hours

Section 101

13 votes (25%)		Strongly agree
8 votes (16%)		Agree
14 votes (27%)		Neutral
13 votes (25%)		Disagree
3 votes (6%)		Strongly disagree

A total of 56 voter(s) in 1156 hours

Section 102

15 votes (27%)		Strongly agree
29 votes (52%)		Agree
6 votes (11%)		Neutral
3 votes (5%)		Disagree
3 votes (5%)		Strongly disagree

Online Voting

- Motivation:
  - More people would vote
  - Votes would be counted more quickly
  - Cost less money
  - Avoid disputed elections like Florida 2000
  - Eliminate ballot box tampering
  - Software can prevent accidental over-, under-voting

- Risks:
  - Gives unfair advantage to those with computers
  - More difficult to preserve voter privacy
  - More opportunities for vote selling
  - Obvious target for a DDoS attack
  - Security of election depends on security of home computers
  - Susceptible to phony vote servers, manipulation by foreign governments
  - No paper copies of ballots for auditing or recounts
  - Reduction in perceived legitimacy of elections even if everything works