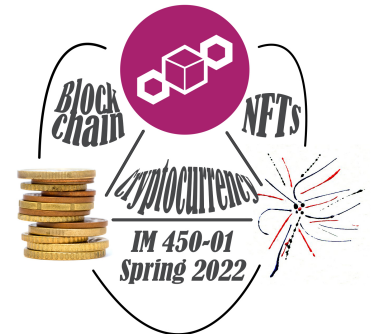


IM 450-01 Issues in IM: *Blockchain, Cryptocurrency, NFTs*

Spring 2022

Class 11—February 24 (+March 1)

**Cybercurrency:
What new problems might be created by
solving the original problem?**



What new problems might be created by solving the original problem?

- **Do these statements represent real problems that needs solving?**
 - At this point, do not worry about whose problem it might be.
 - Yes, Barely, No
- 1. Environmental Damage**
 - 2. Putting too much \$ into unregulated markets**
 - 3. Putting too much money into highly volatile financial markets**
 - 4. Financial damage to vulnerable users**
 - 5. Hacking is a problem ESPECIALLY as the markets multiply**
 - 6. Blockchain is SO private, that platforms can compromise users—no one would know (selling user data, for example)**
 - 7. ICO and Dump schemes damage everyone and everything**
 - 8. Scalability may soon become a problem**
 - 9. Outside of stable coins backed by X, valuation is a problem**
 - 10. “Invisible” crypto & profits can be put to bad uses**

What new problems might be created by solving the original problem?

1. Environmental Damage

- **“Bitcoin Uses More Electricity Than Many Countries.”**
<https://www.nytimes.com/interactive/2021/09/03/climate/bitcoin-carbon-footprint-electricity.html>
- **“Bitcoin power plant making part of glacial lake ‘feel like a hot tub,’ residents say”** <https://arstechnica.com/tech-policy/2021/07/bitcoin-power-plant-is-turning-a-12000-year-old-glacial-lake-into-a-hot-tub/>
- **“Crypto’s Carbon Emissions Problem and the Projects Trying To Solve It”**
<https://decrypt.co/63621/cryptos-carbon-emissions-problem-and-the-projects-trying-to-solve-it>
- **Maybe crypto will help solve environmental problems**
 - **“El Salvador explores bitcoin mining powered by volcanoes”**
<https://abcnews.go.com/International/wireStory/el-salvador-explores-bitcoin-mining-powered-volcanos-80611830>

What new problems might be created by solving the original problem?

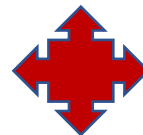
2. Putting too much \$ into unregulated markets

- [“Treasury report calls for stricter oversight of stablecoins”
https://www.seattletimes.com/business/treasury-report-calls-for-stricter-oversight-of-stablecoins/](https://www.seattletimes.com/business/treasury-report-calls-for-stricter-oversight-of-stablecoins/)
- [“Crypto platforms need regulation to survive, says SEC boss”
https://arstechnica.com/tech-policy/2021/09/crypto-platforms-need-regulation-to-survive-says-sec-boss](https://arstechnica.com/tech-policy/2021/09/crypto-platforms-need-regulation-to-survive-says-sec-boss)
- [“Crypto’s Rapid Move Into Banking Elicits Alarm in Washington”
https://www.nytimes.com/2021/09/05/us/politics/cryptocurrency-banking-regulation.html](https://www.nytimes.com/2021/09/05/us/politics/cryptocurrency-banking-regulation.html)
- [“Peter Theil-backed Crypto start-up BlockFi to pay \\$100M in settlement with SEC, 32 states”
https://www.cnbc.com/2022/02/14/crypto-start-up-blockfi-to-pay-100m-in-settlement-with-sec-32-states.html](https://www.cnbc.com/2022/02/14/crypto-start-up-blockfi-to-pay-100m-in-settlement-with-sec-32-states.html)

What new problems might be created by solving the original problem?

3. Putting too much money into highly volatile financial markets

- “A crypto crash wiped out \$1 trillion this week. Here's what happened”
<https://www.cnn.com/2021/05/22/investing/crypto-crash-bitcoin-regulation/index.html>
- “Bitcoin bubble bursts overnight, dragging down stocks” <https://arstechnica.com/tech-policy/2021/05/cryptocurrency-bubble-is-bursting-wiping-out-600-billion/>
- “Bitcoin and Ethereum prices jump to new records”
<https://www.cnn.com/2021/11/08/business/bitcoin-ethereum-price-new-record/index.html>
- “Bitcoin, ethereum prices tumble as cryptocurrencies continue their downward slide”
- “How Crypto Became the New Subprime”
<https://www.cnn.com/2022/01/22/investing/bitcoin-ethereum-cryptocurrency-price-record-high/index.html>
- “Tesla still owns \$2 billion in bitcoin, but crypto volatility has taken a toll”
<https://www.cnn.com/2022/02/07/investing/tesla-bitcoin/index.html>



What new problems might be created by solving the original problem?

4. Financial damage to vulnerable users

- [“Wealth Inequality Drives the Appeal of Crypto”](https://www.nytimes.com/2022/01/31/opinion/crypto-nfts-inequality.html)
<https://www.nytimes.com/2022/01/31/opinion/crypto-nfts-inequality.html>
- [“Crypto Scammers Target Dating Apps”](https://www.nytimes.com/2022/02/21/technology/crypto-scammers-new-target-dating-apps.htm)
<https://www.nytimes.com/2022/02/21/technology/crypto-scammers-new-target-dating-apps.htm>
- [“Divorcing Couples Fight Over the Kids, the House and Now the Crypto”](https://www.nytimes.com/2022/02/13/technology/divorce-bitcoin-crypto.html) <https://www.nytimes.com/2022/02/13/technology/divorce-bitcoin-crypto.html>
- [“Why Experts Think This New Crypto Is A Scam”](https://www.nasdaq.com/articles/why-experts-think-this-new-crypto-is-a-scam)
<https://www.nasdaq.com/articles/why-experts-think-this-new-crypto-is-a-scam>

What new problems might be created by solving the original problem?

5. Hacking is a problem ESPECIALLY as the markets multiply

- “North Korean hackers said to have stolen nearly \$400 million in cryptocurrency last year”
<https://www.cnn.com/2022/01/14/tech/north-korean-hackers-cryptocurrency/index.html>
- “Crypto.com Suspends Withdrawals After ‘Unauthorized Activity’ ”
<https://www.bloomberg.com/news/articles/2022-01-17/crypto-com-suspends-withdrawals-after-unauthorized-activity>
- “In Code We (Lose) Trust: How Hacks Became the Achilles' Heel of Crypto” <https://www.thestreet.com/investing/cryptocurrency/in-code-we-lose-trust-how-hacks-became-the-achilles-heel-of-crypto>

What new problems might be created by solving the original problem?

6. Blockchain is SO private, that platforms can compromise users—no one would know (selling user data, for example)

- **Anonymity, activities that require high-end computer competencies and, lack of regulation are very odd ways to “establish trust”**
 - **“Are You Ready to Trust a Decentralized Autonomous Organization?”** <https://www.shareable.net/are-you-ready-to-trust-a-decentralized-autonomous-organization/>
 - **“Trust in blockchain-based systems”** <https://policyreview.info/glossary/trust-blockchain>

What new problems might be created by solving the original problem?

7. ICO and Dump schemes damage everyone (investors) and everything (the cryptocurrency industry players and platforms).

- [“Cryptocurrency pump-and-dump schemes: What you should know about these scams” https://www.cnet.com/personal-finance/crypto/cryptocurrency-pump-and-dump-schemes-what-you-should-know-about-these-scams/](https://www.cnet.com/personal-finance/crypto/cryptocurrency-pump-and-dump-schemes-what-you-should-know-about-these-scams/)

What new problems might be created by solving the original problem?

8. Scalability may soon become a problem.

- In terms of execution time, it probably already is.
- Let's say "everyone" adopts some form. Just imagine how many ledgers would have to be created, validated, and chained.
- ["Systematic Literature Review of Challenges in Blockchain Scalability"](https://www.mdpi.com/2076-3417/11/20/9372/htm)
<https://www.mdpi.com/2076-3417/11/20/9372/htm>

"In this paper, we have highlighted several potential research open issues such as the huge amount of public blockchain data storage that needs to be considered, huge bandwidth consumption, and consensus approaches aimed at addressing scalability in public blockchain systems."

"There are a number of factors attached to it, including transaction throughput, number of nodes, storage, block size, high communication, latency, cost, and the verification process."

"It is also noticed that the contemporary available consensus models are not efficient enough to address the scalability issue and fail to provide required throughput and latency for industrial applications, specifically for those demanding time mission-critical (or real-time) responses such as IoT."

What new problems might be created by solving the original problem?

9. Outside of stable coins backed by X, valuation is a problem

- Lack of at least semi-predictable valuations is a real problem for currency markets.
- Without reasonable valuation standards, it's not SPECULATION, it's GAMBLING.
 - [“Warren Buffett: Bitcoin Is An Asset That Creates Nothing”](https://www.youtube.com/watch?v=LtITDtZPYEw)
<https://www.youtube.com/watch?v=LtITDtZPYEw>
 - [“It's Hard to Tell When the Crypto Bubble Will Burst, or If There Is One”](https://www.nytimes.com/2022/01/27/business/crypto-price-bubble.html) <https://www.nytimes.com/2022/01/27/business/crypto-price-bubble.html>

What new problems might be created by solving the original problem?

10. “Invisible” crypto & profits can be put to bad uses

- [“Russia Could Use Cryptocurrency to Mitigate U.S. Sanctions”
https://www.nytimes.com/2022/02/23/business/russia-sanctions-cryptocurrency.html](https://www.nytimes.com/2022/02/23/business/russia-sanctions-cryptocurrency.html)
- [“Monero emerges as crypto of choice for cybercriminals”
https://arstechnica.com/information-technology/2021/06/monero-emerges-as-crypto-of-choice-for-cybercriminals/](https://arstechnica.com/information-technology/2021/06/monero-emerges-as-crypto-of-choice-for-cybercriminals/)
- [“North Korea: Missile programme funded through stolen crypto, UN report says”
https://www.bbc.com/news/world-asia-60281129](https://www.bbc.com/news/world-asia-60281129)

Q &A:

4

8:00 am

Level 3 Material 6