# CRYPTOCURRENCY, BLOCKCHAIN, AND A NEW ECONOMIC WORLD

OLLI

LATE SUMMER 2021

LECTURE 6

BEBO WHITE - BEBO.WHITE@GMAIL.COM







#### yahoo!finance

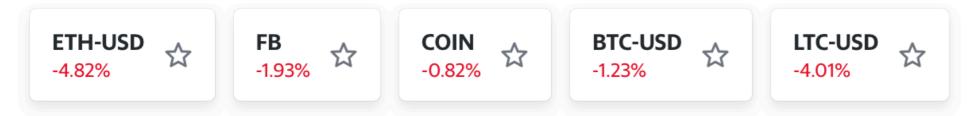
## Diem cryptocurrency will be in 'class of its own,' Facebook executive says



**Ben Werschkul** · Senior Producer and Writer

Fri, September 17, 2021, 6:39 AM · 3 min read

#### In this article:



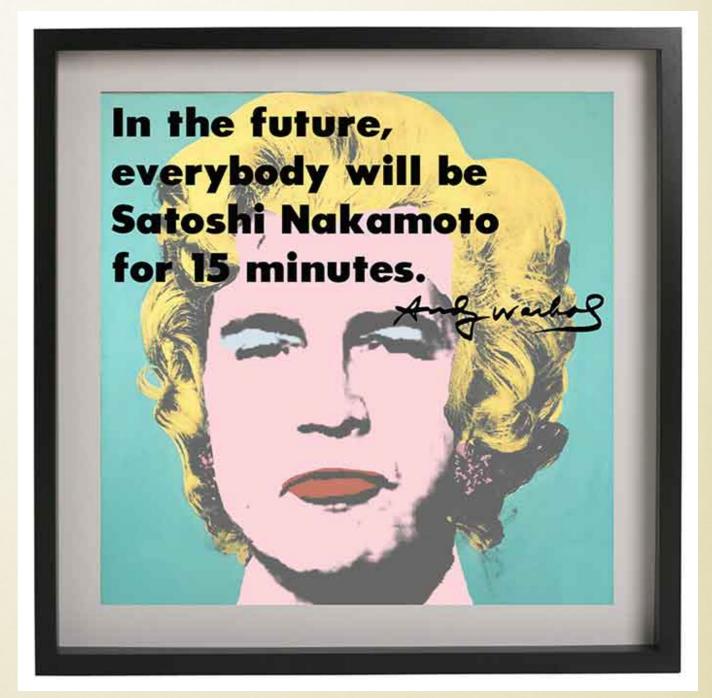
Facebook (FB) has a plan to take over the world of digital wallets, using cryptocurrency to separate it from the likes of PayPal (PYPL) and other digital payment platforms. Its upcoming digital wallet, Novi, will be built upon the still-pending stablecoin Diem.

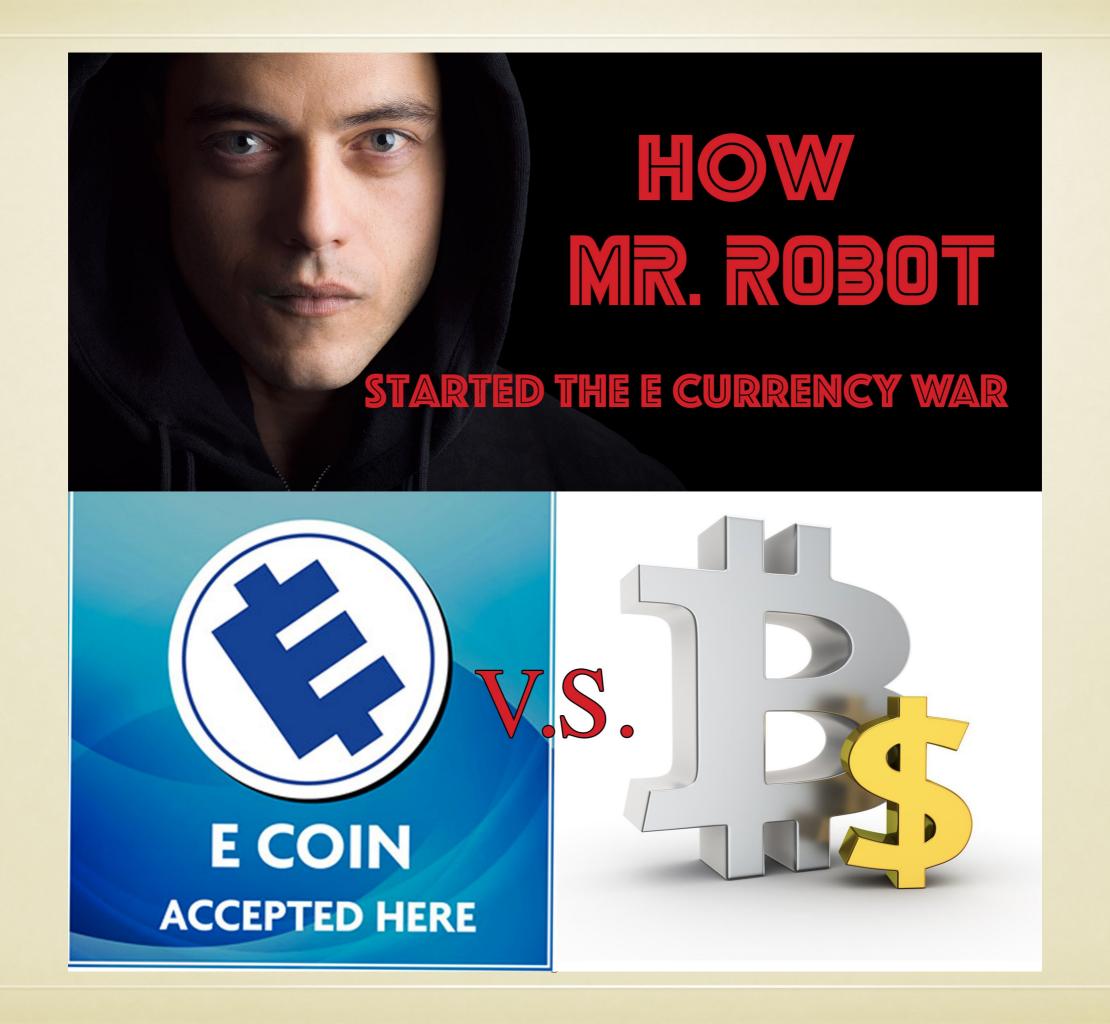


### LET'S START OFF WITH SOME FUN CRYPTOCURRENCY AND POPULAR CULTURE

- popular culture shapes opinion on topical subjects
  - how accurate should it be or should it play to stereotypes?
  - what are limitations on concepts and vocabulary?
- entertainment? education? editorialization?









NCIS - Los Angeles



Silicon Valley



Mr. Robot



SNL - Elon Musk & Mother

### OR JUST CRAZY FUN





more examples on the bibliography page (contributions welcome!)







## House Democrats' plan would close tax loophole used by crypto investors

PUBLISHED TUE, SEP 14 2021-11:18 AM EDT | UPDATED 4 HOURS AGO



Subtitle I – Responsibly Funding Our Priorities

#### Sec. 138153 Wash Sales

This section includes commodities, currencies, and digital assets in the wash sale rule, an antiabuse rule previously applicable to stock and other securities. The wash sale rule in section 1091 prevents taxpayers from claiming tax losses while retaining an interest in the loss asset. The amendments made by this section apply to taxable years beginning after December 31, 2021.

## DOES ANYBODY REALLY KNOW WHAT THEY'RE DEALING WITH?

- Commodity Futures Trading Commission (CFTC) cryptocurrency is a <u>commodity</u>
- Security and Exchange Commission (SEC) cryptocurrency is a <u>security</u>
- Treasury Department/Financial Crimes Enforcement Network (FinCEN) - cryptocurrency is subject to <u>currency</u> rules
- Internal Revenue Service (IRS) cryptocurrency is property
- and let's don't even start on things like NFTs

#### COINIST PRESENTS...

### How To Ensure your ICO Avoids Being Labeled a Security

In a nutshell, if you're investing money planning on profiting from someone else's efforts, you're buying a security. That sounds an awful lot like buying a token and hoping it succeeds.

#### THE HOWEY TEST: WHAT IT IS AND HOW TO AVOID IT

The crypto world has been a tad bit on edge since the SEC infamously ruled The Dao tokens were considered securities for investment purposes. The tokens failed to pass the Howey test, an important court precedent. We'll break down what the Howey test is, why it matters, and how to avoid it.

First know that a a transaction will be considered a security if all of the following requirements are met:

- 1. There is an investment of money
- 2. There is an expectation of profits
- 3. The investment of money is in a common enterprise
- 4. Any profit comes from the efforts of a promoter or third party

### **BE THE FIRST** TO FIND NEW ICO'S

Don't miss out on big cryptocurrency opportunities again. ICOs often sell out quickly, and getting in during the early stages of a new coin launch is important in order to maximize returns. Sign up below to get ICO alerts when new promising ICOs are listed. Be the FIRST to know.

### ALL TYPES OF OTHER OPPORTUNITIES (?) POPPED UP...

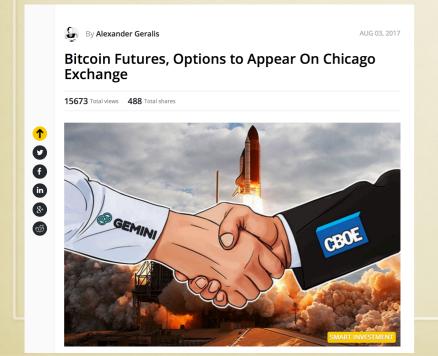
**Taxes for Crypto** 

**Investors** 

- "cottage industries?"/scams?/schemes?
  - cryptocurrency futures
  - cryptocurrency IRAs
  - cryptocurrency hedge funds



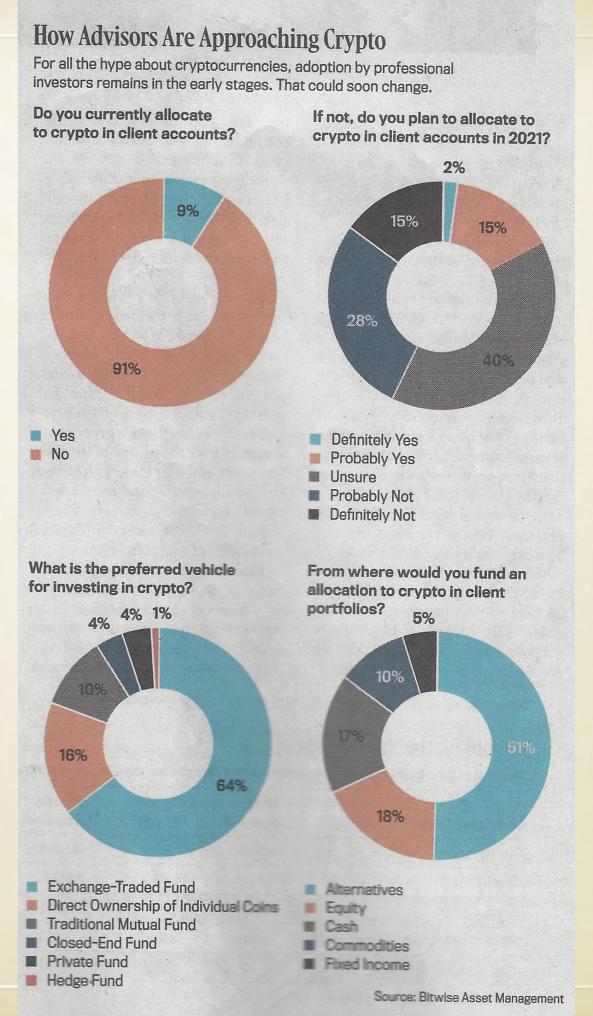
what would Satoshi and the cypherpunks think?







### Wall Street Journal 4/20/2021



## If you can...

Have dinner with your in-laws

**Boil** water

Remember all those dang passwords

Delete your browser history

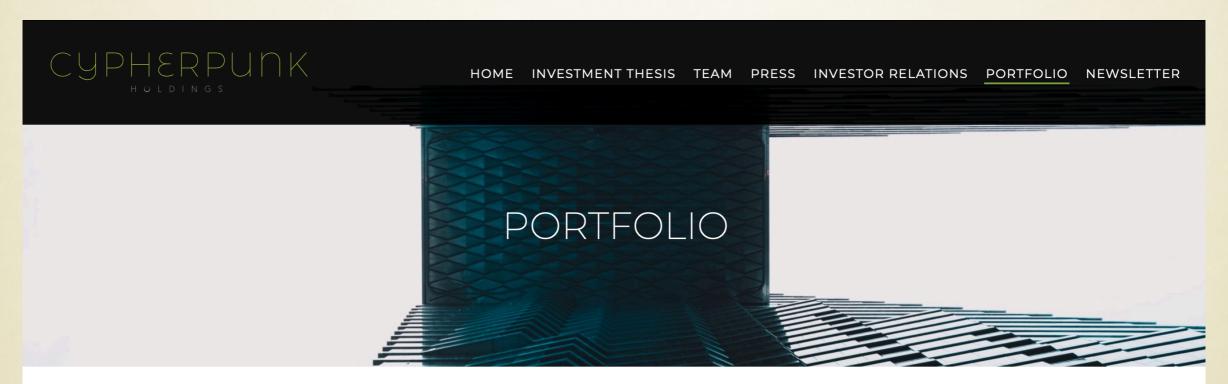
Then you can explore investing in Bitcoin.



### **OUR THESIS**

- Privacy is undervalued. It has been mispriced by the market.
- Attitudes are changing. Many are waking up to its importance.
- As they do, tech and money with strong privacy will have strong market demand.
- Some will pay a premium to protect their privacy
- As public awareness of the importance of privacy increases, a strong narrative will emerge, which will increase demand for privacy tech.

## SATOSHI'S FEATURES BECOME MARKETING POINTS



Cryptocurrency Holding: Bitcoin



We are the Top 20 largest public Bitcoin holders\*

Bitcoin (BTC) is a digital currency, which is used and distributed electronically.

Bitcoin is a decentralised peer-to-peer network. No single institution or person controls it.

Bitcoins can't be printed and their amount is very limited – only 21 mln Bitcoins can ever be created.

\*Source: <a href="https://bitcointreasuries.org">https://bitcointreasuries.org</a>

## CRYPTOCURRENCY ETF (EXCHANGE-TRADED FUND)

- track a single cryptocurrency or a portfolio of different tokens and currencies
- the investment fund purchases the cryptocurrencies and ownership is represented as shares rather than direct ownership investors don't have to be cryptocurrency-saavy
- shares are treated as an asset class
- not supported in the US SEC has indicated that it would not approve trading until cryptocurrency markets demonstrate a degree of stability and security "maybe soon" (Gensler)

## WRITTEN TESTIMONY OF J. CHRISTOPHER GIANCARLO CHAIRMAN, COMMODITY FUTURES TRADING COMMISSION BEFORE THE SENATE BANKING COMMITTEE WASHINGTON, D.C.

**FEBRUARY 6, 2018** 



### INVESTOR ALERT: BITCOIN AND OTHER VIRTUAL CURRENCY-RELATED INVESTMENTS

#### 05/07/2014

The SEC's Office of Investor Education and Advocacy is issuing this Investor Alert to make investors aware about the potential risks of investments involving Bitcoin and other forms of virtual currency.

The rise of Bitcoin and other virtual and digital currencies creates new concerns for investors. *A new product, technology, or innovation – such as Bitcoin – has the potential to give rise both to frauds and high-risk investment opportunities.* Potential investors can be easily enticed with the promise of high returns in a new investment space and also may be less skeptical when assessing something novel, new and cutting-edge.



Customer Advisory: Understand the Risks of Virtual Currency Trading

The U.S. Commodity Futures Trading Commission (CFTC) is issuing this customer advisory to inform the public of possible risks associated with investing or speculating in virtual currencies or recently launched Bitcoin futures and options. Testimony on "Virtual Currencies: The Oversight Role of the U.S. Securities and Exchange Commission and the U.S. Commodity Futures Trading Commission"

Jay Clayton

Chairman, U.S. Securities and Exchange Commission

Before the Committee on Banking, Housing, and Urban Affairs United States Senate February 6, 2018



### INVESTOR ALERT: PONZI SCHEMES USING VIRTUAL CURRENCIES

#### 07/23/2013

The SEC's Office of Investor Education and Advocacy is issuing this investor alert to warn individual investors about fraudulent investment schemes that may involve Bitcoin and other virtual currencies.



## GARY GENSLER (SEC) - SENATE COMMITTEE ON BANKING, HOUSING AND URBAN AFFAIRS - 9/14/2021

"Right now, large parts of the field of crypto are sitting astride of — not operating within — regulatory frameworks that protect investors and consumers, guard against illicit activity, and ensure for financial stability."

"We just don't have enough investor protection in crypto finance, issuance, trading, or lending. Frankly, at this time, it's more like the Wild West or the old world of "buyer beware" that existed before the securities laws were enacted. This asset class is rife with fraud, scams, and abuse in certain applications. We can do better. "

"One, how can we work with other financial regulators under current authorities to best bring investor protection to these markets?

Two, what gaps are there that, with Congress's assistance, we might fill? "

At the SEC, we have a number of projects that cross over both tracks:

- the offer and sale of crypto tokens
- crypto trading and lending platforms
- stable value coins
- investment vehicles providing exposure to crypto assets or crypto derivatives
- custody of crypto assets

"I've suggested that platforms and projects come in and talk to us. Many platforms have dozens or hundreds of tokens on them. While each token's legal status depends on its own facts and circumstances, the probability is quite remote that, with 50, 100, or 1,000 tokens, any given platform has zero securities. Make no mistake: To the extent that there are securities on these trading platforms, under our laws they have to register with the Commission unless they qualify for an exemption.

I am technology-neutral. I think that this technology has been and can continue to be a catalyst for change, but technologies don't last long if they stay outside of the regulatory framework. I believe that the SEC, working with the CFTC and others, can stand up more robust oversight and investor protection around the field of crypto finance. "

### COIN EXCHANGES (1/2)

- aka, cryptocurrency exchange (CE), digital currency exchange (DCE)
- allows customers to trade cryptocurrencies for other assets typically fiat currency or other cryptocurrencies
- generally use credit card payments, wire transfers or direct link to a financial institution
- typically takes bid-ask spread as a transaction commission or fixed fees
- may use customer wallets or anonymous prepaid cards

### COIN EXCHANGES (2/2)

- previously mentioned in connection with money laundering...
- many examples
  - Mt. Gox (!)
  - Gemini (the Winklevoss twins)
  - Coinbase lacks a physical headquarters; went public on NASDAQ in April 2021; used a Direct Public Offering (DPO) instead of an IPO
  - Binance
  - etc., etc.













Binance

### EOS/BTC

**EOS** to Bitcoin

00010310

-0.00000270 (-2.55%) 🗸

207.73 BTC

bithumb

#### ETH/KRW

Ethereum Ether to Korean Won

4,066,000

+92,000.00 (+2.32%)

77,837,788,514 KRW

bitFlyer

### BTC/JPY

Bitcoin to Japanese Yen

5,148,155

+190,568.00 (+3.84%)

39,508,637,801 JPY

Coinbase Pro

BTC/USD

Bitcoin to US Dollar

46,869

+1,794.28 (+3.98%)

578,022,915 USD

Open Exchange Rates

#### **USD/EUR**

US Dollar to Euro

8470

+0.0003 (+0.04%)

0.00 EUR

Bittedin.com

3 hours ago

As Crypto Economy Slumps, Total Value Locked in Defi Continues to Rise



4







### Most traded National Currencies for Bitcoin

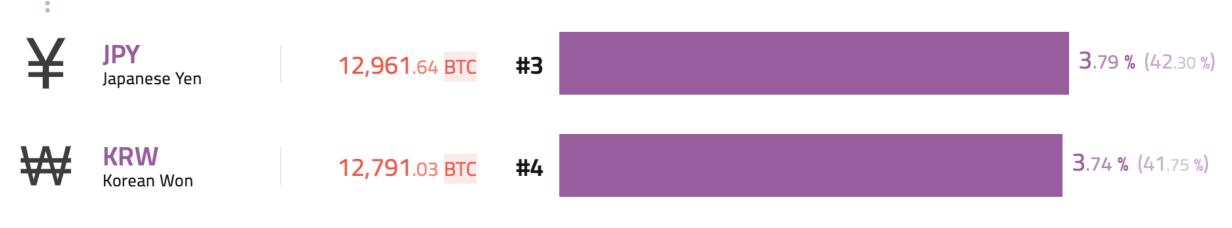
341,840.23 BTC

The 24 hours of total Bitcoin volume, exchanged for various National Currencies





8.96 % (100.00 %)





### GENSLER'S WAR WITH COINBASE

"many tokens
[currently being traded]
may be unregistered
securities, without
required disclosures or
market oversight"

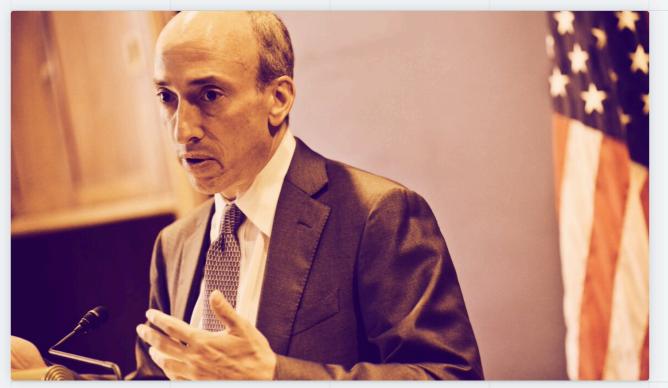
in other words, selling securities without a license

### SEC Chair: Coinbase Lists 'Dozens of Tokens That Might Be Securities'

SEC Chair Gary Gensler took a new shot at Coinbase amid an ongoing dispute between the agency and the company.

By Jeff John Roberts

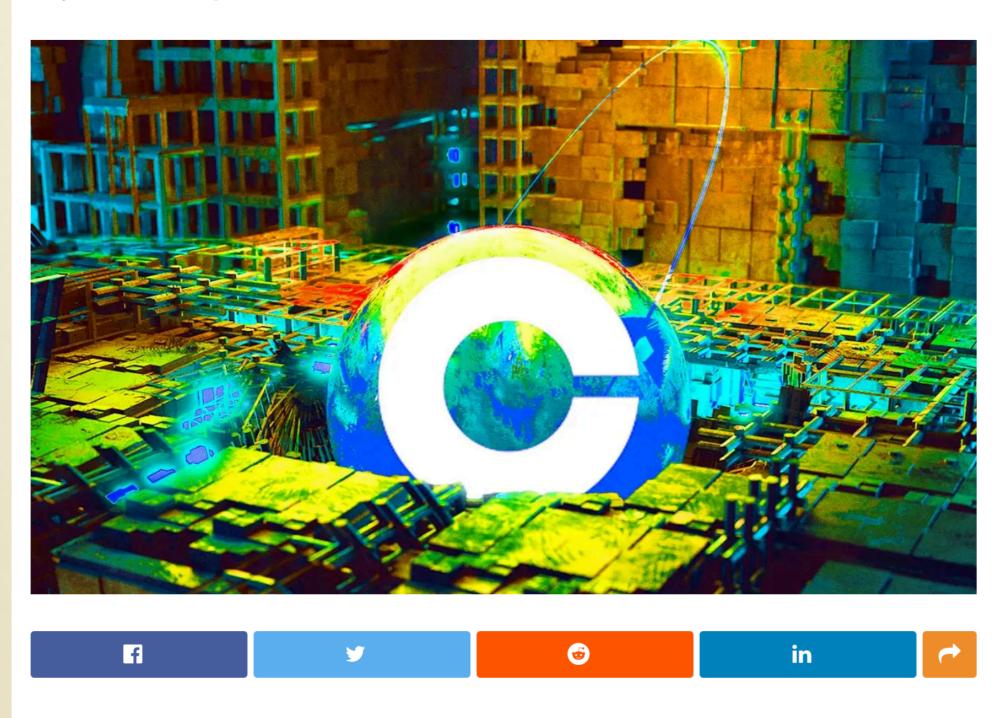
6 min read ⋅ Sep 14, 2021 □



GARY GENSLER. IMAGE: THIRD WAY THINK TANK

### Crypto Exchange Coinbase Announces \$2,000,000,000 Capital Raise Amid SEC Lawsuit Threats

Daily Hodl Staff • September 16, 2021 // BITCOIN //, REGULATORS //, TECHNOLOGY



Coinbase is raising \$2 billion through a debt offering despite receiving lawsuit threats from the U.S. Securities and Exchange Commission (SEC).



### How Bitcoin Can Immunize America From Cancel Culture

Sept. 15, 2021

Bitcoin and similar cryptocurrencies can free ordinary Americans from the financial and psychological discipline and punishment at the core of this system of control. But this gift will disappear if policymakers and legislators, beginning at the state level, don't firmly establish regulatory and statutory impediments to the combined efforts of Washington, Wall Street and Silicon Valley to make cryptocurrency just another cog in the system they control.

States need to become broad legal sanctuaries for cryptocurrency. The use of digital technology to refound America as a soft social credit system can be stopped only by placing digital power in the hands of the people. For generations, our military and intelligence agencies have progressively <u>organized</u> America's technological advancement around unaccountable and extralegal social control. Our <u>dependence</u> on this system for future innovation exacts an unbearable price on our freedom and our flourishing.

## WHILE THE US GOVERNMENT IS TRYING TO FIGURE OUT REGULATION, SOME STATES ARE MOVING AHEAD

- Wyoming has become the most crypto-friendly jurisdiction in the US
  - laws clarifying the treatment of digital assets in commercial law a legal foundation for smart contracts
  - cryptocurrency investors can set up LLCs even if they live outside the state and store assets in Wyoming for legal purposes
  - legal status to DAOs or member-owned communities using blockchain technology
  - bank charters supporting digital asset regulation without requirement of insurance by FDIC - banks must be fully selfreserved with access to cash or cash-like securities



**Agenda** 

**Initiatives** 

Reports

**Events** 

**About** 



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Media > News

### Blockchain Will Become 'Beating Heart' of the Global Financial System

**Published** 

Friday 12 August 2016

Share







Peter Vanham, US Media Lead, Public Engagement, Tel.: +1 646 592 5907, E-mail: pvan@weforum.org

 Blockchain, the technology behind bitcoin could profoundly alter the way banks do business worldwide, lowering their operating costs and making financial services securer and more accessible, a World Economic Forum report finds

"Blockchain is the new quantum physics:
A really, really hard science that no one understands, ambushed by clowns like Deepak Chopra looking to make a quick buck on solutionist nonsense"
——-Chris DeRose (TED talk)

"Blockchain does nothing but circumvent the rules we have imposed on banks to keep them honest"
——-Izabella Kaminska (FT Alphaville)

"A compelling Fin Tech example is the potential for Blockchain technology to replace legacy post-trade processes that currently require trusted third parties such as clearinghouses and depositories to manage and administer the clearing, settlement, and custody associated with trades and payments."

-Dhar & Stein, CACM, 10/2017

## BACK TO "SATOSHI'S DREAM" (1/2)

- he/she/it/they designed a robust framework just for
  - financial transactions (with bitcoin)
  - secure, immutable ledgers (using blockchain)
- he/she/it/they were driven by the belief that they were fundamental flaws in the traditional financial systems that
  - overly benefited centralized institutions
  - ignored consequences for the majority of people
  - could be solved with cryptography and technology

## BACK TO "SATOSHI'S DREAM" (2/2)

- but could he/she/it/they have foreseen
  - the potential involvement of bad actors
  - the issues surrounding consensus (e.g., PoW)?
  - the evolution of other instruments/technologies/ frameworks perhaps as risky as the incident that started it all?
  - cryptoeconomics/FinTech? financial speculation?
  - other applications of blockchain consensus technology?

## COMING FULL CIRCLE - THE CYPHERPUNKS ARE STILL AT IT IN 2021 AND STILL WANT TO CHANGE THE WORLD



### WE, THE MEMBERS OF THE BITCOIN FOUNDATION, BELIEVE THE FOLLOWING TO BE TRUE

- Fiat currency has been a poor long-term store of value, especially since the gold standard was abolished<sup>1</sup>;
- Inflation encourages consumption and discourages savings and the sustain able use of limited resources;
- Traditional financial services, especially banking, are not inclusive for the 2.1 billion people that live in poverty (less than \$3.10/day)<sup>2</sup>;
- Electronic payment processing times and fees are too high, an important reason why 85% of all commerce globally is still done in cash<sup>3</sup>;
- The financial services collapse of 2008 and subsequent banking system bailout caused substantial misery for the poorest of the global population, especially in developing economies<sup>4 5</sup>;
- Losses associated with card fraud totaled \$16.3 billion globally in 2014<sup>6</sup>, with more than half of this fraud occurring online<sup>7</sup>;
- Traditional banking and payments systems are not secure;
- Trust in traditional banking and financial services is at an all-time low8.

Accordingly, we believe that every human has the following financial rights which should not be impeded by governments, regulators, financial institutions or other humans:

- The right to privacy in transactions that involve no harm to others;
- The right to keep your savings, or spend your money, anywhere in the world;
- The right to economic participation with or without a bank account;
- The right to economic participation with or without a credit history;
- The right to convert fiat currency into bitcoin and vice versa;
- The right to use bitcoin as a medium of exchange; 37
- The right to use bitcoin as a store of value.









Do you accept Bitcoin?

# CRYPTOCURRENCIES CAN BE MORE...

- Empowerment
- Transparency











#### Summary

Exchange Rate<sup>2,25</sup>

1.00 USD = 50.8861 PHP

Transfer amount

100.00 USD

Transfer fee<sup>2,25,26</sup>

+ 10.00 USD

Service time:1

In minutes





Legal disclaimers and important info

<sup>1</sup> Date available will be displayed on receipt for international transfers over \$15. Service and funds may be delayed or unavailable depending on certain factors including the Service selected, the selection of delayed delivery options, special terms applicable to each Service, amount sent, destination country, currency availability, regulatory issues, consumer protection issues, identification requirements, delivery restrictions, agent location hours, and differences in time zones (collectively, "Restrictions"). Additional restrictions may apply; see our terms and conditions for details.

<sup>2</sup> Western Union also makes money from currency exchange. When choosing a money transmitter, carefully compare both transfer fees and exchange rates. Fees, foreign exchange rates and taxes may vary by brand, channel, and location based on a number of factors. Fees and rates subject to change without notice.

## WHAT ABOUT EXCHANGE OF VALUE WITHIN UNIQUE COMMUNITIES?

- communities such as
  - the disenfranchised/unbanked
  - those with "dead" or unusable assets/capital
  - those who are victims of failed national financial systems
  - those where the "chain of value" is subject to theft and/or corruption
  - those in desperate need of value after natural or man-made disasters
  - those who are part of "the micro-economy"
- for such communities, money is power!

## THE DISENFRANCHISED/ UNBANKED (1/2)

- it is estimated that more than 2.5 billion people are unbanked why?
  - qualifications/restrictions
  - regulations
  - trust/fear
- they are therefore
  - limited in their financial transactions/power
  - potential victims
- cryptocurrencies may be one of many possible solutions

## THE DISENFRANCHISED/ UNBANKED (2/2)

- a means to facilitate low-cost remittances for those seeking to transfer small amounts of money internationally
- a means for an otherwise excluded individual to have a decentralized global bank account accessible with an open source downloaded "wallet" vs. establishing an account with a financial institution
- does require conversion mechanisms for fiat currencies at both end points
- the basis for a richer set of financial services

### CRYPTOCURRENCIES ARE A PART OF A SOCIAL FINANCIAL REVOLUTION

- "some people are fed up with the centralized banking system"
- "paying with bitcoin makes moving money across borders easy and with low transaction fees and some degree of anonymity"



Claudio Orlandi Aarhus University



coinbase Prices Learn Individuals Businesses Developers Company Sign in Sign up

## Send money internationally for free

- ✓ Fast Send money across borders virtually instantly using XRP or USDC<sup>1</sup>
- ✓ Free No fees to send or receive XRP or USDC to another Coinbase account<sup>2</sup>
- ✓ Global Available to Coinbase users in any supported country, including India, Mexico, and the Philippines<sup>3</sup>

[1] This is not a money remittance; rather, it is a cryptocurrency transaction with conversion into local currency after receipt.

[2] Network fees charged on transfers to non-Coinbase accounts; purchases and sales of XRP are subject to a  ${f Coinbase}$  fee.

[3] In countries where Coinbase does not support the local currency, recipients need to transfer their XRP/USDC to an exchange that supports exchanges from XRP/USDC to local currency.



### ALL IT REALLY TAKES



# ENTREPRENEURSHIP IN DEVELOPING COUNTRIES

- unbanked residents of developing countries are often unable to enter the import or export business because they have no way to convert their currencies into more widely accepted money
- it may be impossible for them to process payments, pay for supplies and equipment and receive loans or lines of credit
- simply having a mobile phone can provide access to a global market independent of any local banking infrastructure



Nairobi based BitPesa has been named one of the 61 most promising Technology Pioneers in 2018 by the World Economic Forum. It won an award for the best apps across Africa in November.

BitPesa is already used to pay online workers - a company called Tunga is using it as a way of getting wages from clients abroad to web developers in Uganda. BitPesa's customers include large multinationals, SMEs and traders who have grown alongside the company

There are online workers, specifically web developers, in Africa who people outside the continent would like to employ but it is difficult or prohibitively expensive to get their wages to them. Some don't have passports, and so don't have bank accounts either.

Bitpesa uses Bitcoin to significantly lower the time and cost of remittances and business payments to and from sub-Saharan Africa.

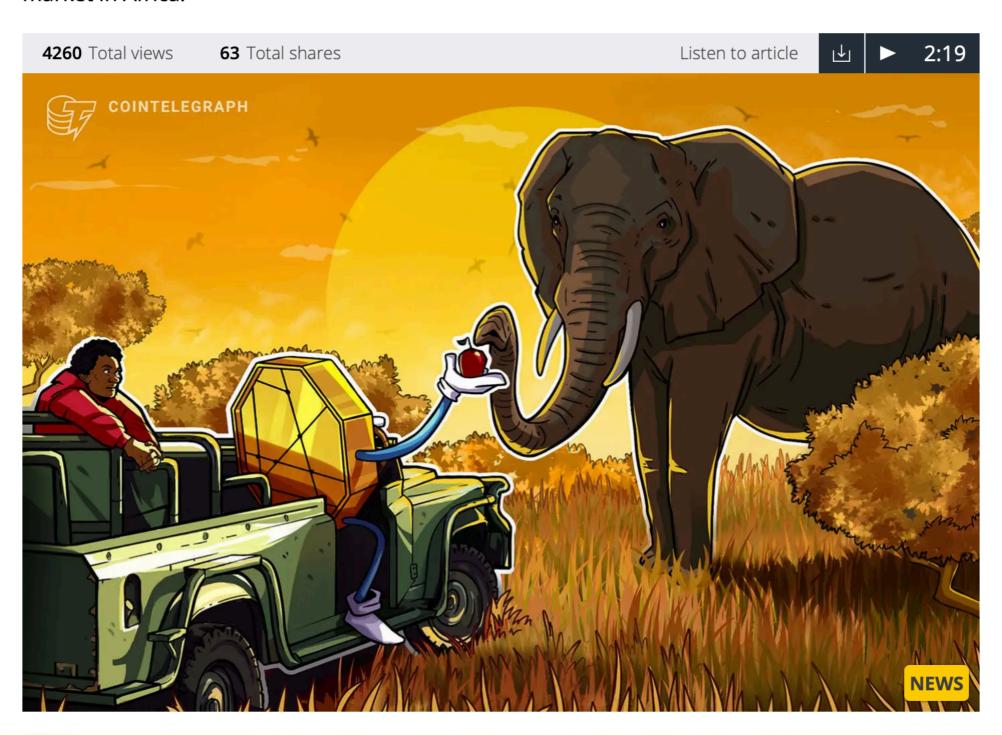
Bitpesa uses the crypto-currency bitcoin as a medium to transfer cash across borders. Bitcoin is a system of digitally created and traded tokens and people keep their tokens in online wallets.

It then takes the Bitcoin tokens and exchanges them into money in mobile money wallets - a popular way of paying for things in places like Kenya and Tanzania.

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## Africa's crypto market has grown by more than 1,200% since 2020: Chainalysis

P2P platforms, the need for remittances to circumvent restrictions from banks, and putting savings into crypto as a means of avoiding inflation could have contributed to the growing market in Africa.







### OR AN INDEPENDENT FINANCIAL FUTURE



— WATCH: El Salvador congress breaks into applause after a bill singed by President @nayibbukele officially passes, becoming the first country in the world to make #bitcoin a legal tender.



"to facilitate the easy flow of remittances into the country from the El Salvadoran diaspora" - the value in 2019 was \$554 billion (World Bank)

#### DECREE No.

#### THE LEGISLATIVE ASSEMBLY OF THE REPUBLIC OF EL SALVADOR

#### CONSIDERING:

- I. That in accordance with Article 102 of the Constitution of the Republic, the State is under the obligation to promote and protect private enterprise, generating the necessary conditions to increase national wealth for the benefit of the greatest number of inhabitants.
- II. That under Legislative Decree No. 201, published in Official Gazette number 241, Volume 349, dated December 22, 2000, the United States dollar was adopted as legal tender.
- III. That approximately seventy percent of the population does not have access to traditional financial services.
- IV. That it is the obligation of the State to facilitate the financial inclusion of its citizens in order to better guarantee their rights.
- V. That in order to promote the economic growth of the nation, it is necessary to authorize the circulation of a digital currency whose value answers exclusively to free-market criteria, in order to increase national wealth for the benefit of the greatest number of inhabitants.
- **VI.** That according to the previous considerations, it is essential to issue the basic rules that will regulate the legal course of bitcoin.

THEREFORE,

DECREES the following:

# THIS MOVE IS NOT WITHOUT CONTROVERSY (1/2)

- every business <u>must</u> accept BTC as legal tender for goods and services unless it is unable to provide the technology needed to process the transaction
- "we are committed to helping El Salvador in numerous ways for currency transparency and regulatory processes...while the government did approach us for assistance on Bitcoin, this is not something the World Bank can support given the environmental and transparency shortcomings" (World Bank)



"bitcoin law should be repealed...will bring more corruption and poverty"



somewhere in San Francisco...

# THIS MOVE IS NOT WITHOUT CONTROVERSY (2/2)

- President Nayib Bukele has indicated that El Salvador will use its vast geothermal resources (24 volcanoes) to support BTC mining with minimal environmental impact
- the International Monetary Fund (IMF) is "not against" the implementation of BTC but sees "macroeconomic, financial and legal issues"
- to be continued

# LET'S DON'T FORGET BLOCKCHAIN BEYOND CRYPTOCURRENCY

- examples
  - traditional systems, e.g., supply chain management, medical data management, etc.
  - unique applications
    - "diamond blockchain"
    - Hernando DeSoto's work on land titles
    - slave labor goods







### THE DIAMOND BLOCKCHAIN

- addressing concerns about "conflict diamonds" or "blood diamonds" (estimated to be at least 15% of the market)
  - of concern to some consumers
  - "conflict diamonds" fund war, terrorism, corruption, etc.
- pioneered by DeBeers
  - tracking diamonds "from the mine to the consumer"

### LAND TITLES

- land deeds of poor property owners on the blockchain
- empowers them as a part of the financial system by "unlocking the value" in their land
- globally verifies ownership in the event of disputes, revolution, disaster, etc.
- provides security and society with more stability
- Hernando de Soto has implemented this in Peru

# Blockchain Proponent and Economist Hernando de Soto Honored With Global Award



# WHAT'S A VIABLE MODEL FOR SLAVE LABOR PRODUCED GOODS?



similar to Diamond Blockchain + "traditional" supply chain?

## A BLOCKCHAIN OF TRUTH AND FICTION? (A SUPPLY CHAIN OF NEWS?)

could the blockchain help to address "fake news?"

what's a viable model? - PoS?









the conversation will (and must) continue

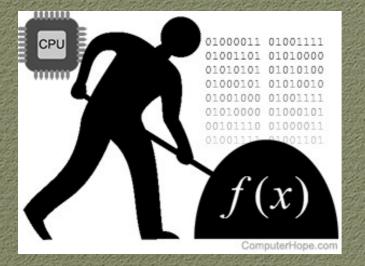












# WHAT ARE 6 WEEKS WORTH OF TAKEAWAYS?

#### Cryptocurrency

- appreciate that it does represent revolutionary new thinking about money like it or not
- <u>recognize</u> that it does have a robust technical and mathematical foundation and is not just a techie, libertarian or anarchist dream
- trust that it is not just a tool for thieves, con artists, scammers, etc.
- <u>believe</u> that it has the potential to empower the financially disenfranchised and effect social change
- <u>know</u> that it will continue to influence financial systems DeFi and FinTech are not going away
- <u>expect</u> a steady stream of ideas, innovations and applications remember the hype cycle
- <u>be assured</u> that it will force the creation of regulations

### Blockchain

- trust the cryptography and the math to support immutability and detect fraudulent behavior
- <u>don't judge</u> strictly due to its connection with cryptocurrency
- <u>believe</u> that it has the potential to be an extremely efficient and effective for storing and sharing content in diverse applications but not a panacea for all
- <u>be assured</u> that it will be an important and disruptive technology in the future but is presently being overhyped
- · look forward to continuing research and applications

### JUST REMEMBER - WE LIVE IN INTERESTING TIMES

- there's been nothing quite like the cryptocurrency phenomenon in history - stay informed - there will never be a dull moment
- resist FOMO if you can't, use your <u>funny money</u> or <u>slush fund</u> research builds trust
- resist giving advice on cryptocurrency a little bit of knowledge is a dangerous thing





at San Francisco State University

### THANK YOU SO MUCH!

SEE YOU AROUND THE OLL!!