

# Bitcoin, Blockchain Mini Workshop v 3.5



How this technology could impact your workplace & your career  
[empoweredlaw.com](http://empoweredlaw.com) or [@pamelawjd](https://twitter.com/pamelawjd)

# About me



- A. Created a niche career to fit my ideal lifestyle
- B. Self-employed / Entrepreneur
  - a. Educate lawyers
  - b. Author
  - c. Travel the world
  - d. Only work with people I like on projects I like
- C. I LOVE my work & my life

Work history: Westlaw, intern E.D. Mich, mid-size midwestern firm (summer), solo, in-house, franchise owner, professor, professional trainer, consultant, author



EMPOWERED LAW

@pamelawjd

**From a practical perspective,**  
how will my loved ones  
access my cryptoassets when  
I'm not around to help them?

<https://www.amazon.com/Cryptoasset-Inheritance-Planning-Simple-Owners/dp/1947910116/>



@pamelawjd

# Audience Poll



## What kinds of projects exist today?

- Banking, Finance
- Escrow
- Tax
- Secured Transactions
- Real Property
- Estate Planning
- Government Policy
- Privacy Law
- Contracts
- ADR
- Insurance
- Non-Profit, NGO
- Intellectual Property
- International Law
- Equity Issuance
- Corporate Governance
- Funding & IPO
- Campaign Finance
- Central Bank Issuance
- Gaming
- Identity



Novel Legal Issues

@pamelawjd

# Paying Taxes with Bitcoin

The image shows a website banner for OHIOCRYPTO.com. The background is a blue-tinted image of a chain with binary code (0s and 1s) overlaid. In the top left corner, there is the seal of the State of Ohio and the text "ROBERT SPRAGUE TREASURER OF OHIO". In the top right corner, there are two buttons: "FAQ" and "Contact". In the center, the text "OHIOCRYPTO.com" is displayed in a large, bold font, with "Cryptocurrency Tax Payment Portal" underneath it. In the bottom left corner, there is a "Get Started" button. In the bottom right corner, the text "How it works" is visible.

ROBERT SPRAGUE  
TREASURER OF OHIO

FAQ Contact

**OHIOCRYPTO.com**  
Cryptocurrency Tax Payment Portal

Get Started How it works

@pamelawjd

# GiveTrack



[Home](#)

[Explore](#)


[About](#)

[Need Bitcoin?](#)

[Start a project](#)

[Login](#)

[Sign Up](#)

A background image showing a purple water pump on the left and a group of smiling children in the center. The scene is outdoors with trees in the background.

## This is the future of philanthropy

Real-time financial transparency and project outcomes

@pamelawjd

bitcoin

the currency

Bitcoin

the network

—

@pamelawjd



# Bitcoin is an invention

<https://bitcoin.org/bitcoin.pdf>  
Bitcoin is "The Internet of Money"



<https://www.maxpixel.net/Pina-Colada-Cocktail-Alcohol-Drink-Recipe-Party-847246>

Bitcoin is...

- A. electronic, global peer-to-peer **cash**
- B. an **invention** in computer science
- C. a **trust** platform
- D. a network **protocol**
- E. an experiment
- F. all of the above**

@pamelawjd

## Terms of art:

- A. **a peer-to-peer network**: everyone is equal
- B. **consensus rules**: what makes a transaction valid, what makes a block valid (future/present)
- C. **validation**: testing against rules
- D. **immutable**: ledger history more than a few days cannot be changed by anyone (PoW)
- E. **proof-of-work**: uses an extrinsic asset to secure the network (unrecoupable costs)

@pamelawjd

**It's anonymous,  
it's encrypted**

**Only drug  
dealers/bad  
people use it**

**It's a pyramid  
scheme / not  
backed by  
anything**

**It is  
unregulated**

**It wastes energy**

# **Mistaken beliefs about bitcoin**

# Truths about bitcoin

**It secures \$68B  
of digital cash  
w/ no 3rd party**

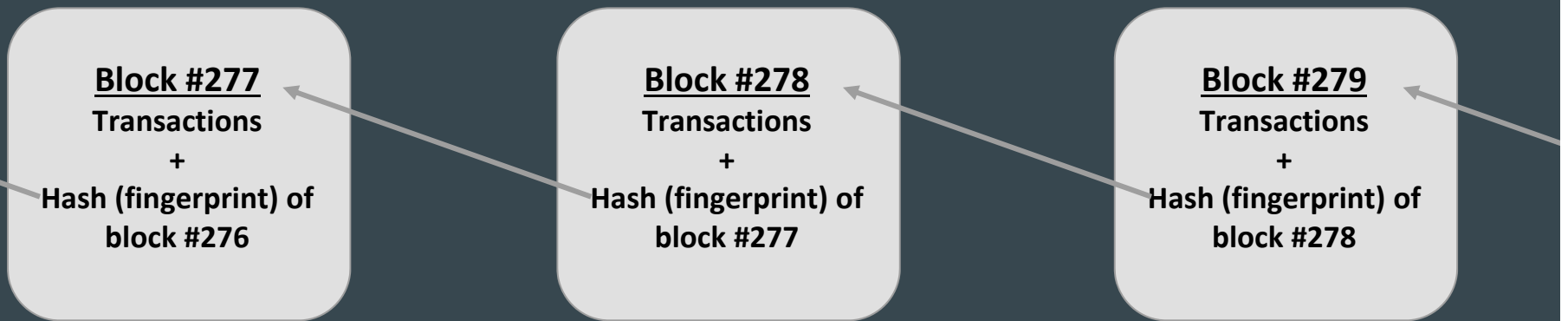
**It's being  
attacked  
everyday**

**Proof-of-work  
consensus  
provides  
security**

**It's young,  
fast-paced,  
& often  
awkward**

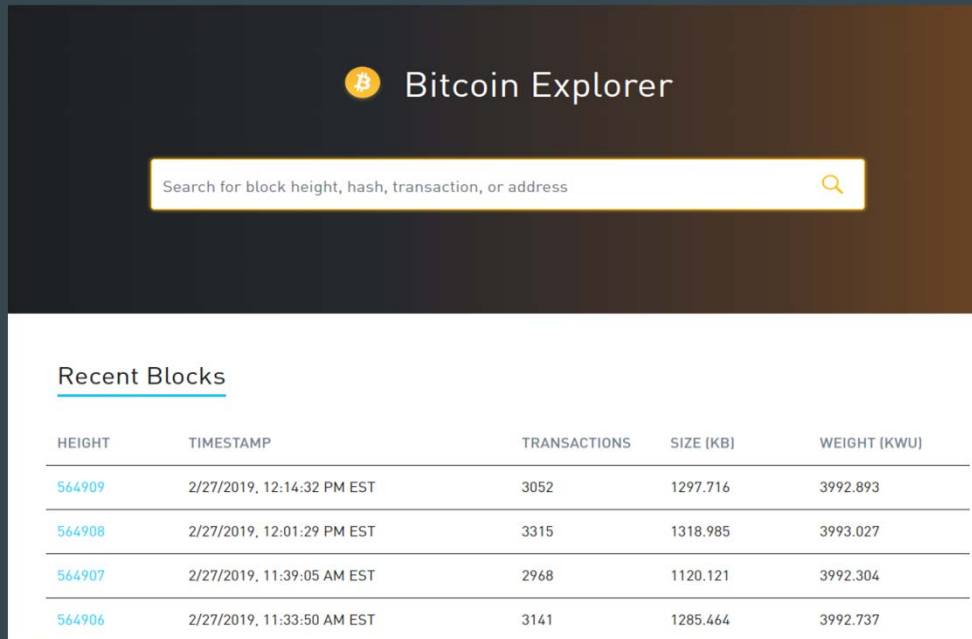
**Excluding  
identity is a  
feature, not a  
bug**

What is a blockchain? A chain of blocks.



blocks of data, chained / linked together  
with fingerprints (hashes)

# Using Blockchain Explorers



The screenshot shows the Bitcoin Explorer interface. At the top, there is a Bitcoin logo and the text "Bitcoin Explorer". Below this is a search bar with the placeholder text "Search for block height, hash, transaction, or address" and a magnifying glass icon. Underneath the search bar is a section titled "Recent Blocks" which contains a table with five columns: HEIGHT, TIMESTAMP, TRANSACTIONS, SIZE (KB), and WEIGHT (KWU). The table lists four recent blocks with their respective details.

HEIGHT	TIMESTAMP	TRANSACTIONS	SIZE (KB)	WEIGHT (KWU)
<a href="#">564909</a>	2/27/2019, 12:14:32 PM EST	3052	1297.716	3992.893
<a href="#">564908</a>	2/27/2019, 12:01:29 PM EST	3315	1318.985	3993.027
<a href="#">564907</a>	2/27/2019, 11:39:05 AM EST	2968	1120.121	3992.304
<a href="#">564906</a>	2/27/2019, 11:33:50 AM EST	3141	1285.464	3992.737

@pamelawjd



Go to [blockstream.info](https://blockstream.info)

Look up block number 277316

[Mastering Bitcoin 2nd Edition](#) at amazon.com or  
<https://github.com/bitcoinbook/bitcoinbook>



# Details for block 277316

 **Block 277316**  
0000000000000001b6b9a13b095e96db41c4a928b97ef2d944a9b31b2cc7bdc4 

[← PREVIOUS](#) [NEXT →](#)

[DETAILS +](#)

HEIGHT	<a href="#">277316</a>
STATUS	In best chain (287577 confirmations)
TIMESTAMP	12/27/2013, 6:11:54 PM EST
SIZE (KB)	218.629
VIRTUAL SIZE (KVB)	219
WEIGHT UNITS (KWU)	874.184

@pamelawjd

# Coinbase = Newly Minted Bitcoin

d5ada064c6417ca25c4308bd158c34b77e1c0eca2a73cda16c737e7424afba2f DETAILS +

#0 Coinbase	>	#0 P2PK	25.09094928 BTC
			25.09094928 BTC

@pamelawjd

Use Example: Alice pays Bob for a cup of coffee



@pamelawjd

[https://upload.wikimedia.org/wikipedia/commons/2/22/Mobile\\_payment\\_03.JPG](https://upload.wikimedia.org/wikipedia/commons/2/22/Mobile_payment_03.JPG)

# Alice Pays Bob

0627052b6f28912f2703066a912ea577f2ce4da4caa5a5fbd8a57286c345c2f2 DETAILS +

#0 7957a35fe64f80d234d76d83a2a8f1a0d8149a41d8 1de548f0a65a8a999f6f18:0	0.1 BTC	>	#0 1GdK9UzpHBzqzX2A9JFP3Di4weBwqgmoQA	0.015 BTC
			#1 1Cdid9KFAaatwczBwBttQcwXYCpvK8h7FK	0.0845 BTC
				0.0995 BTC


@pamelawjd

# Find Alice's Payment to Bob

1. Use the first 4 characters of Bob's Address to search for the transaction
  - a. CTRL + f (find function in your browser)
  - b. 1Gdk (case sensitive)
1. Select Bob's Address to see the transaction history

# Bob's Immortal Address

## Address

1GdK9UzpHBzqzX2A9JFP3Di4weBwqgmoQA 



CONFIRMED TX COUNT	32
CONFIRMED RECEIVED	32 outputs (0.26589525 BTC)
CONFIRMED UNSPENT	32 outputs (0.26589525 BTC)

@pamelawjd

# Transactions to Bob

Typical tx:  
1 input 2 output

Typical tx:  
Change is first

Typical tx:  
Aggregates inputs  
Change is first

25 of 32 Transactions

[e6680df8309ee3d74f07d7a347d5aaa53ef352521977a6a561012cf64b9d273](#) [DETAILS](#) +

#0 2df3a7e51d2f61e9ecb75d643b6eadd0182cc6546 0.01660349 BTC 15c89e57b72c33a3e564c3a0	>	#0 1GdK9UzpHBzqzKZA9JFP3Di4weBwgmoQA 0.015 BTC
		#1 1DcMowaSrzA1RpMauD3zMaCXym1XRy4oY 0.00044367 BTC

82407 CONFIRMATIONS 0.01544367 BTC

[26d6c0675ace1a3eba67c56fbc40b009fc47531df1eb554db756f06935c902d3](#) [DETAILS](#) +

#0 011f9ec7db2baa80f9d2a8c12e11e3ad9de4ea0a2 1 BTC e611b043d0003f3be4872a0	>	#0 1G5Bd5j6Y6PFjqTb5KvqM9Q4sYdHaNr 0.98443716 BTC
		#1 1GdK9UzpHBzqzKZA9JFP3Di4weBwgmoQA 0.015 BTC

85227 CONFIRMATIONS 0.99963716 BTC



[d2aec84d90e6bd286fe40e00f4607c73cb4b907b51b94d5d04a3e02a6046e49](#) [DETAILS](#) +

#0 10dfd5ba007eb39043658b7b5ed283bc2dcf417a44 0.006307 BTC 38e039114de19935d85f33:1	>	#0 1MvW5y9o4gC23xQRqEhacPl3bD4RKRf5p 0.041031 BTC
#1 388311b108e43d40c57ecc0564f9758aa7b37d688 0.003114 BTC bda7441d01a95cc593d86c7:0		#1 1GdK9UzpHBzqzKZA9JFP3Di4weBwgmoQA 0.015 BTC
#2 3b1e551bd820b41e5f1870c25f3a302592d943520 0.047237 BTC 9222dde2889b98de2c4b507:0		

88176 CONFIRMATIONS 0.056031 BTC

@pamelawjd

# When was Bob's Address first funded?

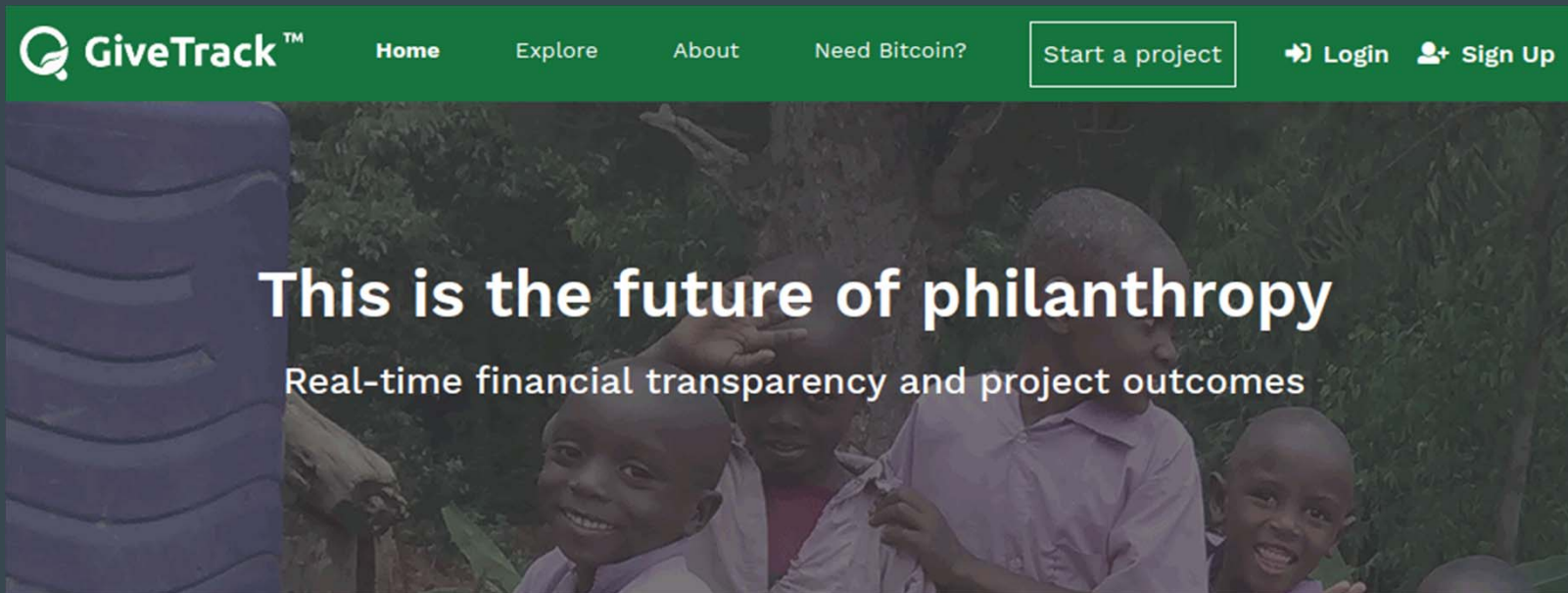
 Transaction  
0627052b6f28912f2703066a912ea577f2ce4da4caa5a5fbd8a57286c345c2f2 

STATUS	287900 Confirmations
INCLUDED IN BLOCK	<a href="#">000000000000001b6b9a13b095e96db41c4a928b97ef2d944a9b31b2cc7bdc4</a>
BLOCK HEIGHT	277316
BLOCK TIMESTAMP	12/27/2013, 6:11:54 PM EST
SIZE (BYTES)	258
VIRTUAL SIZE (VBYTES)	258
WEIGHT UNITS (WU)	1032
TRANSACTION FEES	0.0005 BTC (194 sat/vB)
VERSION	1
LOCK TIME	0

@pamelawjd



# GiveTrack.org: donation & audit transparency



Disclosure: I am an unpaid advisor to the BitGive Foundation

@pamelawjd

# Questions?

Next up: blockchains, changing rules, & tokens

# Bitcoin's blockchain

**the immutable ledger where all  
bitcoin transactions are recorded  
and maintained**

# The Blockchain

**a meaningless term used by the  
confused or corrupt**

*see "blockchain will change everything"*

— @pamelawjd

**It's the  
technology  
behind bitcoin**

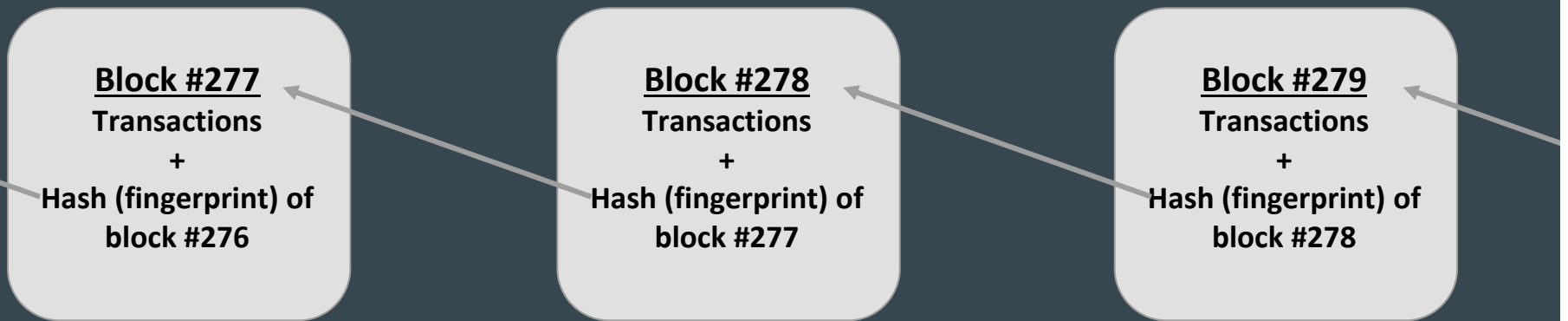
**It is an  
immutable  
ledger**

**It is the solution  
to every problem**

# **Mistaken beliefs about blockchain**

**There are  
“blockchain  
experts”**

What is a blockchain? A chain of blocks.



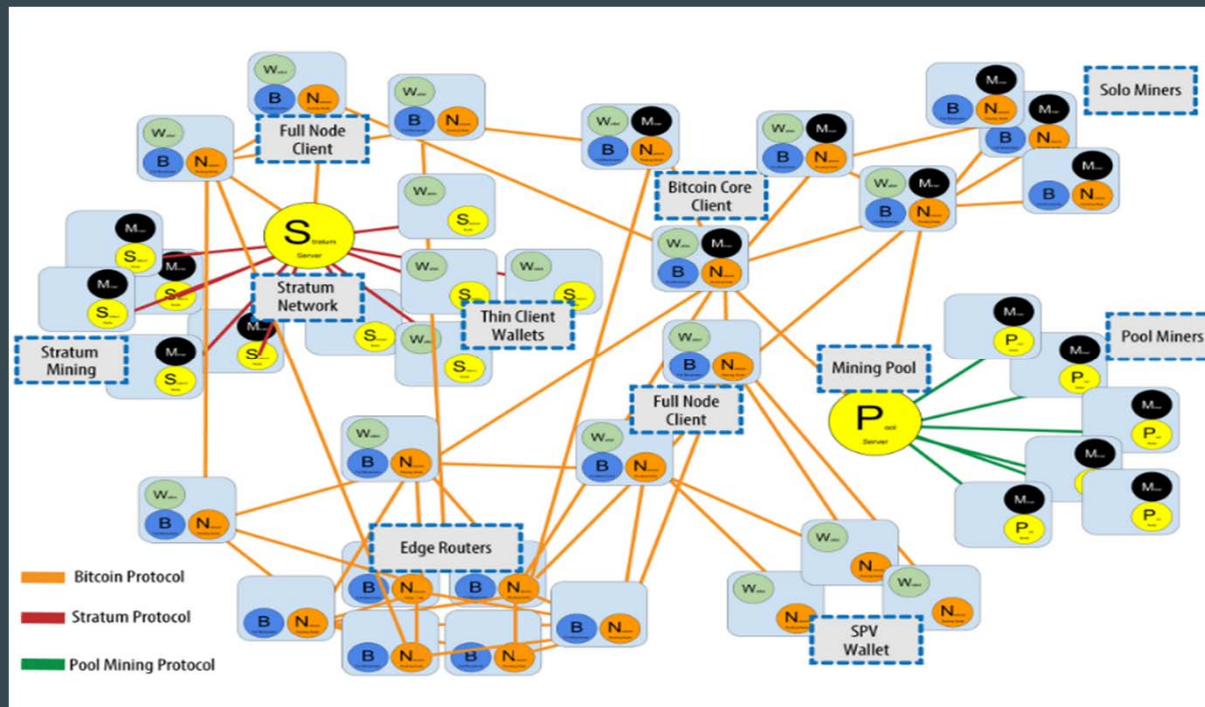
blocks of data, chained / linked together  
with fingerprints (hashes)

The most important questions to ask about blockchain projects:

- A. who can change the **future**
- B. who can change the **past**
- C. at what **cost**
- D. **who will know, when, & how**

@pamelawjd

# The Bitcoin Network

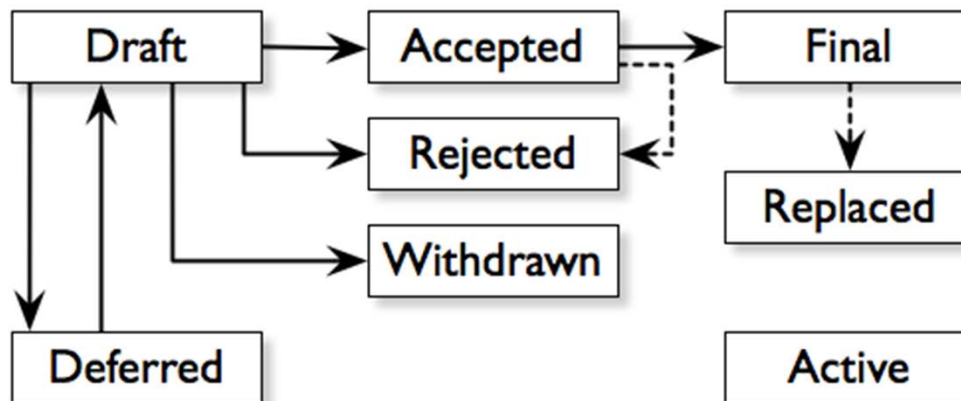


@pamelawjd

# Changing the Future (upgrades)

## BIP Workflow

As described in [BIP 0001](#) the workflow of a BIP is as follows:



[https://en.bitcoin.it/wiki/Bitcoin\\_Improvement\\_Proposals](https://en.bitcoin.it/wiki/Bitcoin_Improvement_Proposals)  
<https://github.com/bitcoin/bips/blob/master/README.mediawiki>

@pamelawjd



# Changing the Past

**Learn More About Bitcoin**

Immutability and Proof-of-Work - the planetary scale digital monument ...  
1:16:28  
[www.antonopoulos.com](http://www.antonopoulos.com)

Bitcoin Q&A: What is mining?  
3:11  
[@aantonop](https://twitter.com/aantonop)

**Andreas M. Antonopoulos**  
Author of 'Mastering Bitcoin' and 'The Internet of Money'

Play (k) 5:43 / 5:50 Music - 'Unbounded' by Orfan (facebook.com/orfan)

Bitcoin Q&A: Energy consumption

<https://www.youtube.com/watch?v=2T0OUIW89II&list=PLPQwGV1aLnTsHvzevl9BAUIfsfwFfU7aP&index=5>

@pamelawjd

Who will know? When? How?

...

**at what cost???**

@pamelawjd



## What makes Bitcoin's Blockchain Trustworthy?

Decentralized

Public

Independent

Consensus

Open to  
Everyone

Borderless

Proof-of-Work

Open  
Source

Censorship Resistant

Immutable

# The DAO Case Study

TOKEN SALE

The DAO Token Sale (ICO)

THE DAO IS AUTONOMOUS. |

<https://www.smithandcrown.com/sale/thedao/>

@pamelawjd

# ethereum.org

## Build unstoppable applications

Ethereum is a **decentralized platform that runs smart contracts:** applications that run exactly as programmed without any possibility of downtime, censorship, fraud or third-party interference.

These apps run on a custom built **blockchain, an enormously powerful shared global infrastructure that can move value around and represent the ownership of property.**

This enables developers to create markets, store registries of debts or promises, move funds in accordance with instructions given long in the past (like a will or a futures contract) and many other things that have not been invented yet, all without a middleman or counterparty risk.

The project was bootstrapped via an ether presale in August 2014 by fans all around the world. It is developed by the [Ethereum Foundation](#), a Swiss non-profit, with contributions from great minds across the globe.



*On traditional server architectures, every application has to set up its own servers that run their own code in isolated silos, making sharing of data hard. If a single app is compromised or goes offline, many users and other apps are affected.*

*On a blockchain, anyone can set up a node that replicates the necessary data for all nodes to reach an agreement and be compensated by users and app developers. This allows user data to remain private and apps to be decentralized like the Internet was supposed to work.*

@pamelawjd

# The DAO promises

- A. The DAO, a distributed autonomous organization is holding an ICO. It is not quite a crowdsale: **the DAO is selling ownership of itself** and raising ETH in the process. The DAO's first act will be to hire Slock.it to do their work.
- A. The tokens **represent ownership** over the DAO, which includes being able to nominate and **vote** on DAO activities, nominate and **vote** on DAO curators. At any point, token holders can burn their tokens and retrieve their unspent ETH.
- A. Any **profits** the DAO makes on its investments will be **given back** to token holders as **dividends**.

@pamelawjd

# The Attack

- A. A rightful DAO token holder found a way to use the “get out of this investment” part of the smart contract to direct ETH to a new wallet controlled by the token holder. But not just their funds...
- A. The community watched, in horror, as ETH streamed out of the DAO and into a private account. \$150m became \$125m became \$90m...



@pamelawjd

# ETH Price During the Attack



@pamelawjd



# Ethereum Promises

## Build unstoppable applications

Ethereum is a **decentralized platform that runs smart contracts**: applications that run exactly as programmed without any possibility of downtime, censorship, fraud or third party interference.

@pamelawjd

Small Group Discussion: assume someone can intervene.

What, if any,



@pamelawjd

# Two Perspectives - - Who is Right?

We must intervene:

Theft is Wrong  
Justice Required

Proof-of-Stake

We can't intervene:

Known Risks  
Sets Precedent  
Breaks Immutability

Code is law

@pamelawjd

# Proposal: Freeze & Refund

...

**Freeze The DAO code base smart contract (all instances)**  
**Change consensus rule to RefundDAO code**  
(effectively the first smart contract bankruptcy)

@pamelawjd

# Meet ETH & ETC - Different Consensus Rules



**Ethereum** ✓  
@ethereumproject

Open source platform to write and distribute decentralized applications.

📍 worldwide

🔗 [ethereum.org](https://ethereum.org)

📅 Joined January 2014

📅 Born on December 23

[Tweet to Ethereum](#)



**Ethereum Classic**  
@eth\_classic

Latest News and Information from Ethereum Classic (ETC). A cryptocurrency with smart contracts which respects immutability and neutrality.

📍 Blockchain

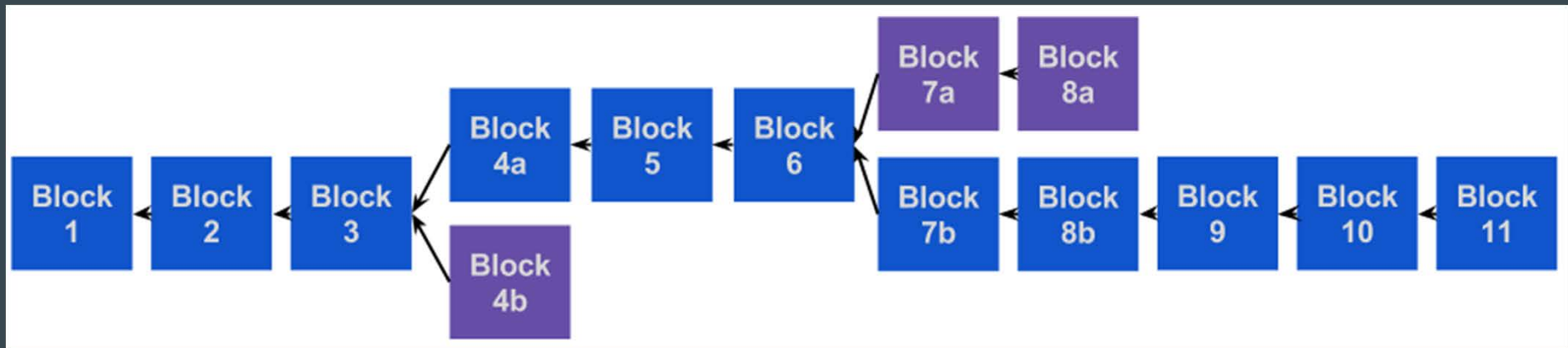
🔗 [ethereumclassic.org](https://ethereumclassic.org)

📅 Joined July 2016

[Tweet to Ethereum Classic](#)

@pamelawjd

# What is a network fork?



Hard Fork v Soft Fork, Contentious v Not, Accidental v Intentional  
Forkology by Andreas M. Antonopoulos

@pamelawjd

# Questions?

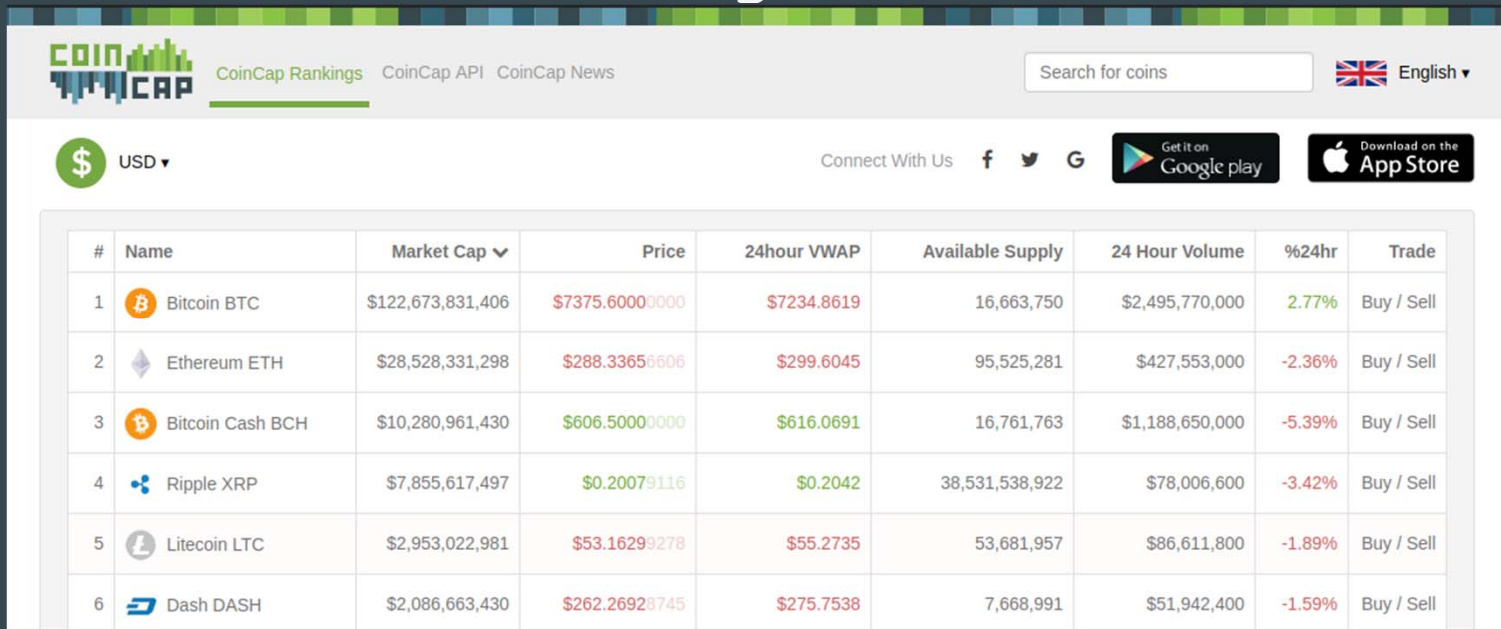
Next up: so many tokens

# Not Just Bitcoin....







**Let's look at other tokens (and learn how you can create your own)**



# How Many Tokens?



The screenshot shows the CoinCap website interface. At the top, there is a navigation bar with the CoinCap logo, links for 'CoinCap Rankings', 'CoinCap API', and 'CoinCap News', a search bar for coins, and a language selector set to 'English'. Below the navigation bar, there is a currency selector set to 'USD' and social media links for Facebook, Twitter, and Google+. There are also buttons for downloading the app on Google Play and the App Store.

#	Name	Market Cap	Price	24hour VWAP	Available Supply	24 Hour Volume	%24hr	Trade
1	 Bitcoin BTC	\$122,673,831,406	\$7375.60000000	\$7234.8619	16,663,750	\$2,495,770,000	2.77%	Buy / Sell
2	 Ethereum ETH	\$28,528,331,298	\$288.33656606	\$299.6045	95,525,281	\$427,553,000	-2.36%	Buy / Sell
3	 Bitcoin Cash BCH	\$10,280,961,430	\$606.50000000	\$616.0691	16,761,763	\$1,188,650,000	-5.39%	Buy / Sell
4	 Ripple XRP	\$7,855,617,497	\$0.20079116	\$0.2042	38,531,538,922	\$78,006,600	-3.42%	Buy / Sell
5	 Litecoin LTC	\$2,953,022,981	\$53.16299278	\$55.2735	53,681,957	\$86,611,800	-1.89%	Buy / Sell
6	 Dash DASH	\$2,086,663,430	\$262.26928745	\$275.7538	7,668,991	\$51,942,400	-1.59%	Buy / Sell

@pamelawjd

# ethereum.org



@pamelawjd

# Bjork's Reportedly Giving Away Cryptocurrency With Her New Album



Rhett Jones

Yesterday 3:48pm • Filed to: CRYPTOCURRENCY

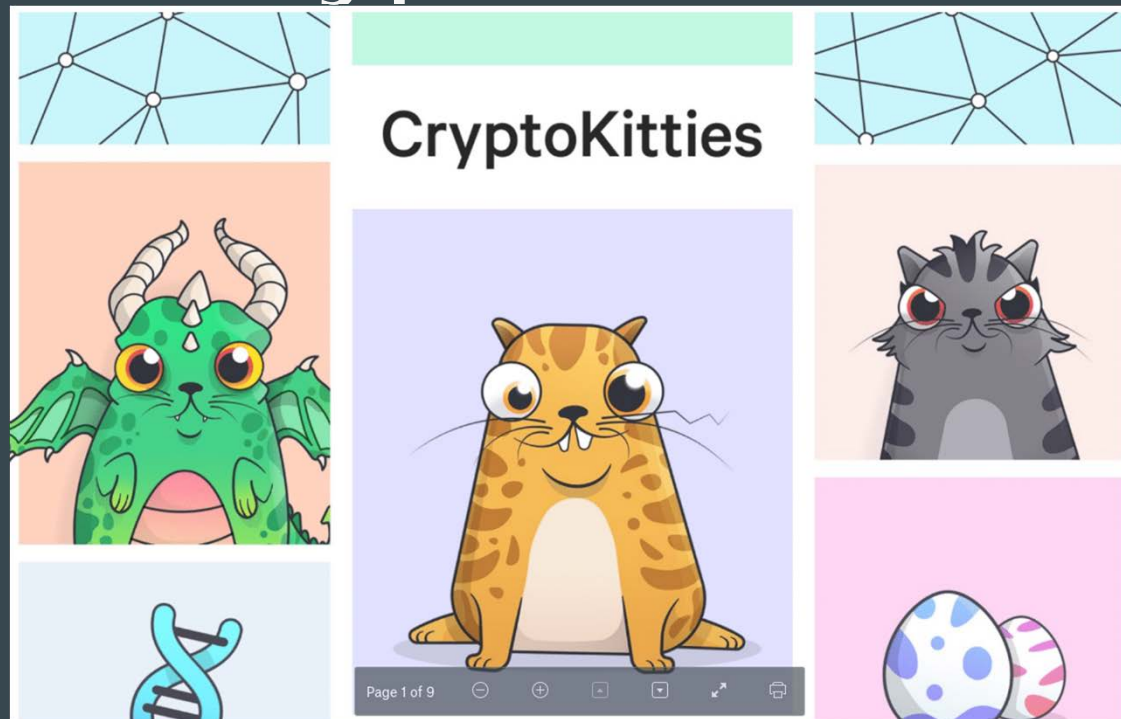
20 2



Photo: Associated Press

@pamelawjd

# Crypto Kitties



@pamelawjd

<https://ethfiddle.com/09YbyJRfil>

# Etherscan.io - Ethereum Blockchain Explorer

The screenshot displays the Etherscan.io interface. At the top, there is a navigation bar with the Etherscan logo and links for Home, Blockchain, Tokens, Resources, and More, along with a Sign In button. A notification banner states: "Note: The Constantinople 'network upgrade' has been successfully completed!". Below this is a search bar with the text "Search by Address / Txhash / Block / Token / Ens" and a "Search" button. The main content area is divided into several sections:

- ETHER PRICE:** \$136.68 @ 0.03539 BTC (-0.91%)
- MARKET CAP:** \$14.359 Billion
- LATEST BLOCK:** 7284618 (15.6s)
- DIFFICULTY:** 2,262.53 TH
- TRANSACTIONS:** 399.19 M (7.4 TPS)
- HASH RATE:** 152,130.38 GH/s
- ETHEREUM TRANSACTION HISTORY IN 14 DAYS:** A line graph showing transaction volume over time, with the y-axis ranging from 400k to 600k and the x-axis showing dates from Feb 14 to Feb 28.

Below these statistics are two columns of data:

- Latest Blocks:**

Bk	Miner	Difficulty
7284618 18 secs ago	Miner Nanopool 180 Txns in 13 secs	2,08813 Eth
7284617 31 secs ago	Miner SparkPool 176 Txns in 47 secs	2,13185 Eth
- Transactions:**

Tx	From	To	Value
0x948ac644c8... 18 secs ago	From 0xa17a296d9e6862...	To 0x6f14c9feaf7a0efe...	0 Eth
0x5c1f24cf979... 18 secs ago	From 0xe08836cbb0669e...	To 0x87f51c9df947a0b...	0.1 Eth

@pamelawjd

# Search for CryptoKitties Token

Etherscan

Eth: \$136.68 (-0.91%)

Home Blockchain Tokens Resources More Sign In

Token CryptoKitties

CryptoKitties NFT Collectibles

Crypto Loan

Overview [ERC-721]

Total Supply: 1,422,998 CK

Holders: 72,539 addresses

Transfers: 3,639,131

Profile Summary

Contract: 0x06012c8c97bead5deae23707095878e7a266d

Official Site: <https://www.cryptokitties.co/>

Social Profiles: [Email](#) [Discord](#) [Twitter](#)

Transfers Holders Inventory Info DEX Trades Read Contract Write Contract Comments

A total of 3,639,131 transactions found (Showing the last 100k records)

First < Page 1 of 4000 > Last

TxHash	Age	From	To	Token_id
0x9f951620878e3ed...	26 secs ago	0xb1690c08e213a3...	0xa3ffa3dc36f382d7...	190695
0xb6a01a1595f54d...	26 secs ago	0xb1690c08e213a3...	0xa3ffa3dc36f382d7...	381333

@pamelawjd

# Find Who Owns the Most CryptoKitties Tokens

The screenshot shows the Etherscan interface for the CryptoKitties token (ERC-721). The overview section displays the following statistics:

- Total Supply: 1,422,998 CK
- Holders: 72,539 addresses
- Transfers: 3,639,138

The profile summary includes the contract address `0x06012c8cf97bead5deae237070f9587f8e7a266d`, the official site <https://www.cryptokitties.co/>, and social media links for email, Telegram, and Twitter.

The 'Holders' tab is active, showing a table of the top 1,000 holders. The table is paginated to show Page 1 of 20. The top two holders are:

Rank	Address	Quantity	Percentage
1	<a href="#">0xb1690c08e213a35ed9bab7b318de14420fb57d8c</a>	208,234	14.6335%
2	<a href="#">0x68b42e44079d1fd0a4a037e8c6ecd62cd48967e69f</a>	165,406	11.6238%

@pamelawjd

# Look at their transaction history

The screenshot shows the Etherscan interface for the CryptoKitties token. The top navigation bar includes the Etherscan logo, a search bar, and links for Home, Blockchain, Tokens, Resources, and More. The current page is titled 'Token CryptoKitties' and shows an overview of the token's supply and holders. A specific user's profile is displayed, showing their contract address, official site, and social profiles. Below this, the user's balance is shown as 208.234 CK. The main section is titled 'Transfers' and shows a list of transactions filtered by the token holder. The table below shows two recent transactions, both outgoing, with their respective hashes, ages, and token IDs.

Etherscan

Eth: \$136.67 (-0.91%)

Search by Address / Txhash / Block / Token / Ens

Home Blockchain Tokens Resources More Sign In

Token CryptoKitties

CryptoKitties NFT Collectibles

Crypto Loan

Overview [ERC-721]

Total Supply: 1,423,000 CK

Holders: 72,539 addresses

Profile Summary

Contract: 0x06012c8cf97bead5deae237070f9587f8e7a266d

Official Site: <https://www.cryptokitties.co/>

Social Profiles: [Email](#) [Discord](#) [Twitter](#)

FILTERED BY TOKEN HOLDER (CryptoKitties\_SalesAuction)

0xb1690c08e213a35ed9bab7b318de14420fb57d8c

BALANCE

208.234 CK

Transfers Inventory Info DEX Trades Read Contract Write Contract

0xb1690c08e213a35ed9ba... x

A total of 1,607,754 transactions found  
(Showing the last 100k records)

First < Page 1 of 4000 > Last

TxHash	Age	From	To	Token_id
0x9f951620878e3ed...	1 min ago	0xb1690c08e213a3...	OUT 0xa3ffa3dc36f382d7...	190695
0xb6a01a1595ff54d...	1 min ago	0xb1690c08e213a3...	OUT 0xa3ffa3dc36f382d7...	381333

@pamelawjd



# Questions?

Next up: case study, taxes, and use cases

# Paying Taxes with Bitcoin

The image shows a blue-themed banner for the OHIOCRYPTO.com website. The background features a stylized, glowing blue chain with binary code (0s and 1s) integrated into the links. In the top left corner, there is the official seal of the Treasurer of Ohio, followed by the text "ROBERT SPRAGUE" and "TREASURER OF OHIO". In the top right corner, there are two white buttons: "FAQ" and "Contact". The main text in the center reads "OHIOCRYPTO.com" in a large, bold, white font, with "Cryptocurrency Tax Payment Portal" underneath it in a smaller white font. In the bottom left corner, there is a white button with the text "Get Started". In the bottom right corner, the text "How it works" is displayed in white.

@pamelawjd

# Taxes in the U.S.

A. IRS Guidance: virtual currencies are property

B. Must Read:

<https://coincenter.org/pdf/BitcoinTaxesCalvin.pdf>  
f

C. Libra Tax Software

@pamelawjd

# Accepting Cryptocurrencies for Payment

- A. Download and backup a wallet**
- B. Price earned income in your local currency**
- C. Specify source for exchange rate (e.g. CME, BRR)**
- D. Accept payment in 3 minutes or less**
- E. Immediately convert or set cost basis**

@pamelawjd

# How to get bitcoin or other cryptocurrency

- A. **Download a wallet** application (e.g. Blue, Jaxx)
  
- A. **Buy it:** exchanges, bitcoin ATM, a friend
- B. **Earn it:** accept it for payment of services
- C. **Gift:** ask for it

@pamelawjd

# Vital Record: Key Backup

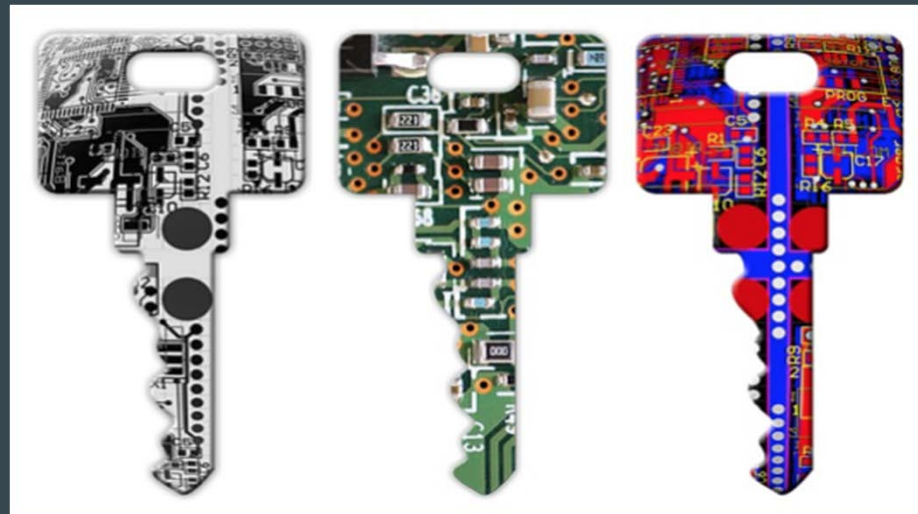
**Without a key backup, you could lose access forever**  
**With the backup, full access; anywhere anytime**  
**No third parties to compel**

# Use Cases

**Features of Bitcoin & some other open public blockchains  
that can solve real problems for real people**

# Escrow without Custody

Superior client  
trust account:  
multisig BTC



@pamelawjd



# Get Your Security Deposit Back

Balancing the power  
between landlords and  
tenants using multisig

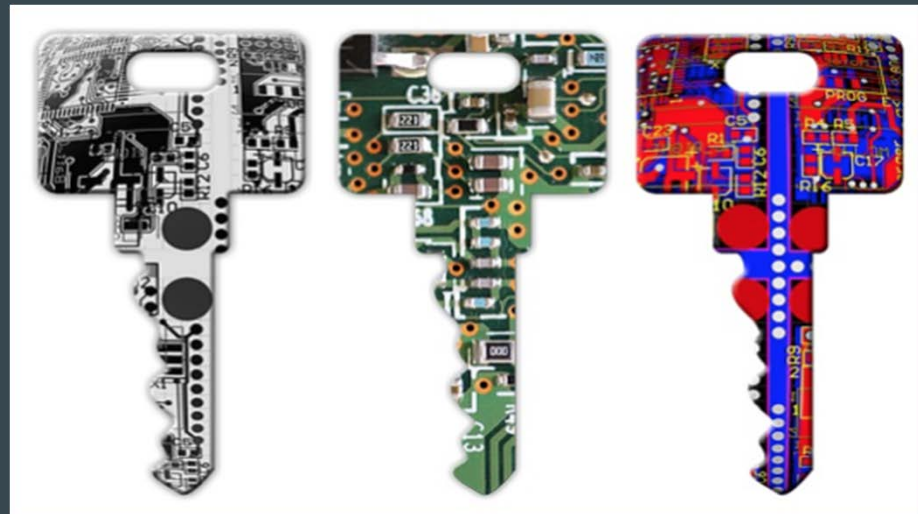


@pamelawjd

# Dispute Resolution

**ADR Friendly**

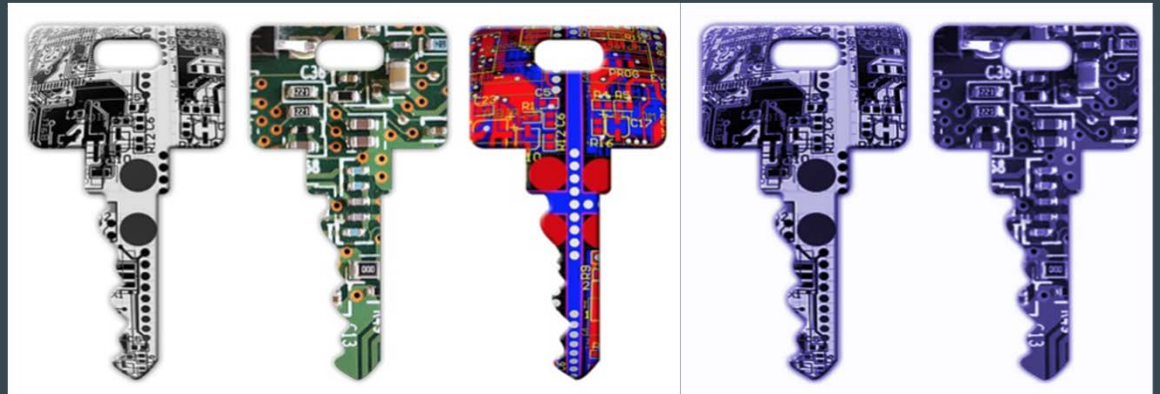
**AAA Commercial  
Arbitrator**



@pamelawjd

# Governance & Audits

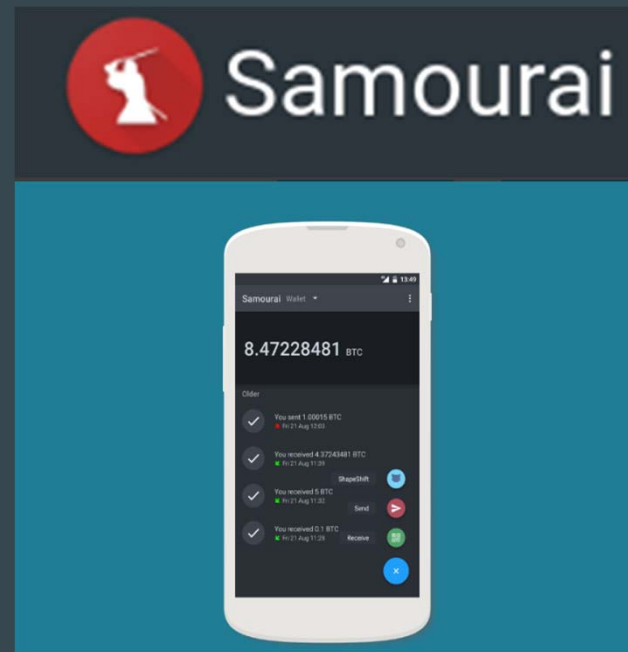
Investors can see  
everything in real  
time, no auditor  
report required



@pamelawjd

# Empowering the Powerless

**Hidden Wallet &  
Privacy Features:  
saving \$ to escape  
abuse, unsafe places**



@pamelawjd

# Streaming Money & Micropayments

Turning revenue  
streams into **cash flow**

**Paying for attention**



[https://unsplash.com/photos/4z\\_SYrG5mgA](https://unsplash.com/photos/4z_SYrG5mgA)

@pamelawjd

# Crypto Currency Security Standard (CCSS)

CRYPTOCURRENCY SECURITY STANDARD	LEVEL I	LEVEL II	LEVEL III
Key/Seed Generation	✓		
Wallet Creation	✓	✓	✓
Key Storage	✓		
Key Usage	✓	✓	
Key Compromise Policy	✓	✓	
Keyholder Grant/Revoke Policies & Procedures	✓	✓	✓
Third-Party Security Audits/Pentests	✓		
Data Sanitization Policy	✓	✓	✓
Proof of Reserve	✓		
Audit Logs	✓	✓	

@pamelawjd

# Flaw crippling millions of crypto keys is worse than first disclosed

Estonia abruptly suspends digital ID cards as crypto attacks get easier and cheaper.

DAN GOODIN - NOV 6, 2017 10:10 PM UTC



[Enlarge](#) / A digital identity card issued by the Republic of Estonia.

@pamelawjd

Security Bug - \$200m +

# Security Alert

7 November 2017

**Severity:** Critical

**Product affected:** Parity Wallet (multi-sig wallets)

**Summary:** A vulnerability in the Parity Wallet library contract of the standard multi-sig contract has been found.

**Affected users:** Users with assets in a multi-sig wallet created in Parity Wallet that was deployed after 20th July.

@pamelawjd





EMPOWERED **LAW**



# Free Resources

For owners &  
professionals

[Empoweredlaw.com](http://Empoweredlaw.com)

sign up for our newsletter

Questions?

# Thank You!



Contact: [pamela@empoweredlaw.com](mailto:pamela@empoweredlaw.com)



@pamelawjd