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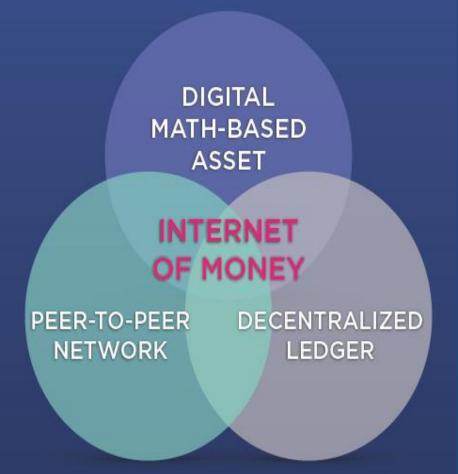
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- What is Bitcoin?
- Bitcoin Use Cases
- The Internet of Money
- Transactions in Real Time
- Fun Facts
- International Remittance Network
- Charitable Giving
- Immutable Ledger
- Use Cases

# WHAT IS BITCOIN?

- Bitcoin (capital "B") is a peer-to-peer network that maintains a public decentralized ledger of digital math-based assets known as bitcoins (lowercase "b").
   The integrity of this ledger is backed and secured by a subnetwork of computers (miners) who audit and archive its transactions for a reward.
- The supply of bitcoins is fixed at 21 million and each bitcoin can be divided into a hundred million pieces.
- Their ownership cannot be changed within the ledger without instructions from their current owner that have been cryptographically authenticated (digital signatures) by a majority of nodes on the Bitcoin network. In essence, "sending a bitcoin" is sending instructions to the network to make a change of custody in the public ledger.
- These attributes make the Bitcoin network a financial network, or the "Internet of Money".



Analogy.

"If the internet was a set of railroad tracks, Bitcoin is the passenger car {protocol} and bitcoins are the commuters {money}".

You can send money {value} from any point in the world, to another point instantaneously, securely and for minimal fees, without a bank.







 The Internet decentralized news, reporting, content, blogging.

Ex: Huffington Post, Dredge, Zero Hedge

- Twitter vs. Embedded Journalism-CNN
- Facebook "Live"

# Bitcoin is Digital Money

#### COWRY SHELLS TO COINS



#### 1,300 BCE

Cowry shells are the predominant form of payment in most of Asia, Africa, Oceania, and some parts of Europe.

#### 1.000 BCE

China's Western Zhou dynasty begins using metal coins.

#### 687 BCE

King Alyattes of Lydia (present-day Turkey) orders the first metal coins to be minted in the Western world.

#### PAPER MONEY



#### 806 CE

Due to a copper shortage, Emperor Hien Tsung issues the first known paper banknotes.





#### 1661

Sweden issues Europe's first banknotes.

### Bitcoin is the New Gold

# GOLD STANDARD 1816 1879 Gold is England's official standard of value, and England mints the one pound gold coin the "sovereign." Gold is the United States' official standard of value.



### Bitcoin is the New Gold

#### E-MONEY, CREDIT CARDS, & DIGITAL CURRENCY

1860

Western Union conducts the first electronic fund transfer (EFT).

1950

The first credit card, the cardboard Diners' Club card, is released.

1999

Mobile banking begins in Europe.

967

England receives the world's first ATM.

2009

Bitcoin system, the world's first digital currency, launches.

**FUN FACT:** 

The first Bitcoin transaction was a pizza order on May 21st, 2010 for 10,000 BTC (programmer Laszlo Hanyecz sent the Bitcoins to a volunteer in England, who spent -\$25 on an order for Hanyecz).



Less than 3 years later, that pizza was worth about

\$750,000



#### Why Bitcoin Is Hard To Understand

At the crossroads of:

- 1. Game theory
- Cryptography
- Computer networking and data transmission
- Economic and monetary theory

Mainly not a technology, a <u>cultural paradigm shift</u> instead

Ferdinando hits a key point that I'll be delving into
 bitcoin is not just a technology; it's a technology
 that represents something even less tangible.

Bitcoin is a living protocol that emerges from a melting pot of ideas, philosophies, cultures and politics after they undergo trial by fire.

You can read the "Rise of the Cypherpunks" to learn how we came to be where we are today.

### Bitcoin Uses

- Bitcoin as digital money you can text or email
- Technology / Internet Protocol-Decentralized
- Remittance network
- International network of payments
- Open, Public, Borderless, Censorship resistance,
   Decentralized, Transnational, Neutral
- Peer-to-peer money you can transmit instantaneously without a bank or government with little or no fee
- No <u>reference</u> to central authority

# Distributed Ledger Technology

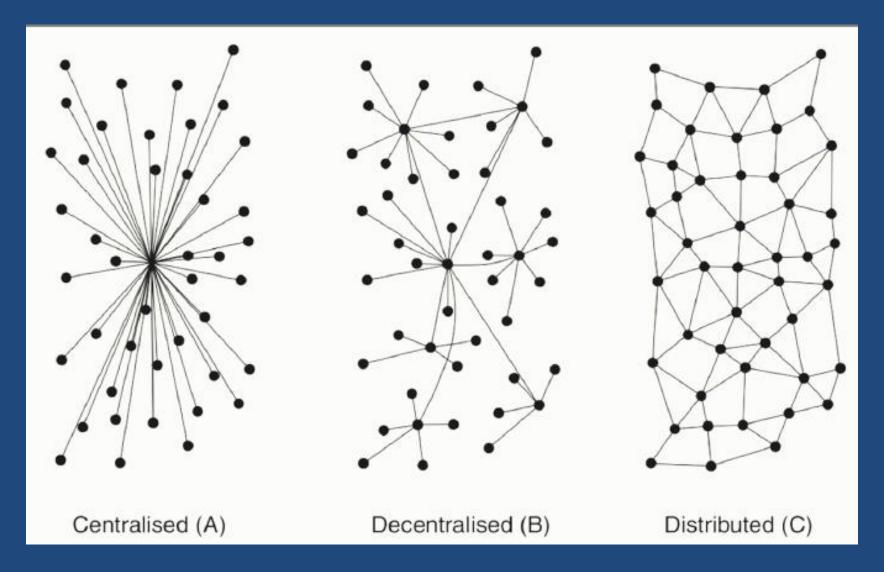
# Blockchain vs Distributed Ledger

Blockchain Is Public, Decentralized, Innovative

Distributed Ledger Is Private, Stale, Hackable

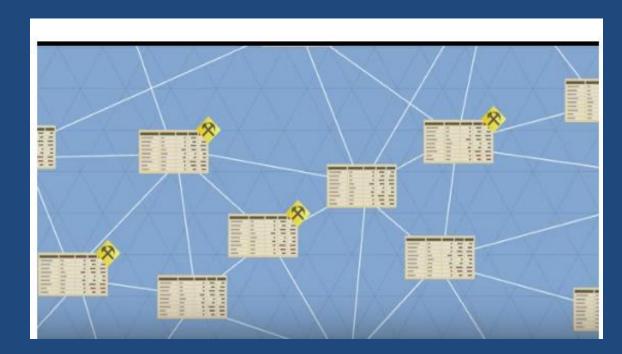
Federated Is Private Database w/ Public Access

# No Central Authority



# Bitcoin Public Ledger

- Enables a network of computers to maintain a collective booking via the internet. It is public, and available in one digital appended ledger.
   This is called the "blockchain"
- Each node owns a full copy of the ledger



# Bitcoin Public Accounting Ledger

 Participants called "miners" expend vast amounts of electrical energy to run computer networks needed to verify the integrity of each transaction and block of transactions.

They are awarded bitcoins for work performed

Consensus is achieved every 10 minutes by thousands of participants.

# Bitcoin Public Accounting Ledger

The ledgers do not show ownership of value but only a record of all past transactions.

From these past transactions however, "wallets" can infer ownership because the record is immutable and infinitely stored.

# MegaBigPower's Franchisee Program Could Reshape Bitcoin Network

Stan Higgins (@mpmcsweeney) | Published on June 30, 2014 at 21:00 GMT



#### My Life Inside a Remote Chinese Bitcoin Mine

Eric Mu | Published on June 8, 2015 at 12:07 GMT

FEATURE

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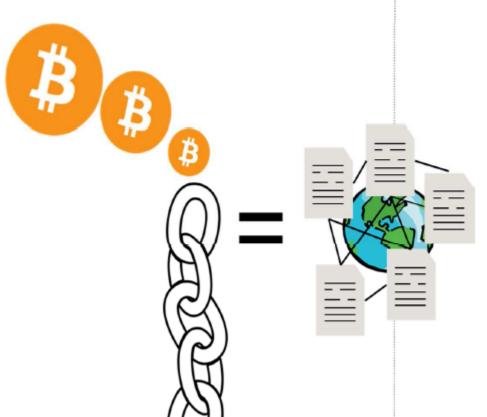
Eric Mu is chief marketing officer at HaoBTC, a bitcoin wallet service. Here he speaks about life at the company's bitcoin mine in the Tibetan mountains.



# Bitcoin Public Accounting Ledger

#### Bitcoin Blockchain is a Distributed Ledger

Distributed ledger technology enables peer to peer, trustless transfer of value without the need for third party intermediaries or central authorities



#### Shared Distributed Ledger

All parties (can) have a copy. No reconciliation

#### Cryptographic Digital Fingerprinting

Secrecy and a Digital Signature

#### Decentralized Consensus

No central intermediary

#### Non-Repudiable Chain of Ownership

Auditable transaction history & a "Single point of truth"

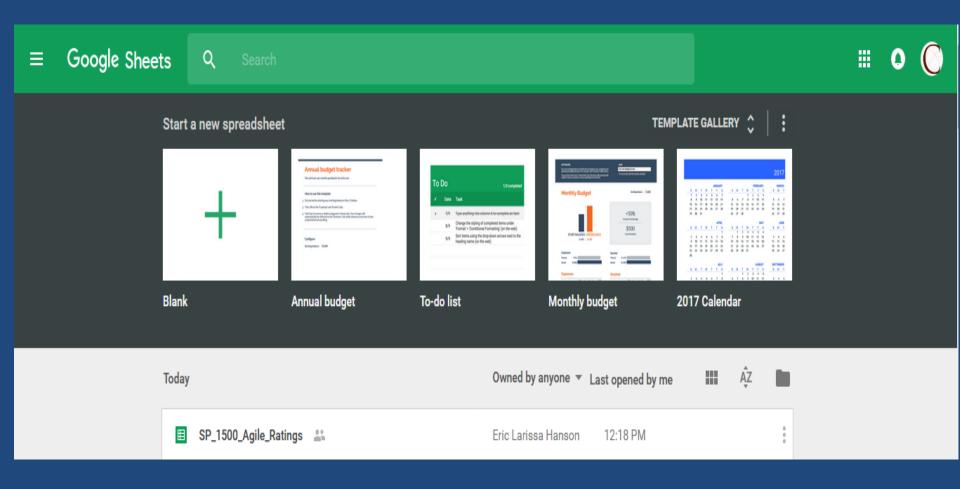
#### **Smart Contracts**

 Distributed Ledgers can enforce terms and contractual details

# Excel As Centralized Ledger

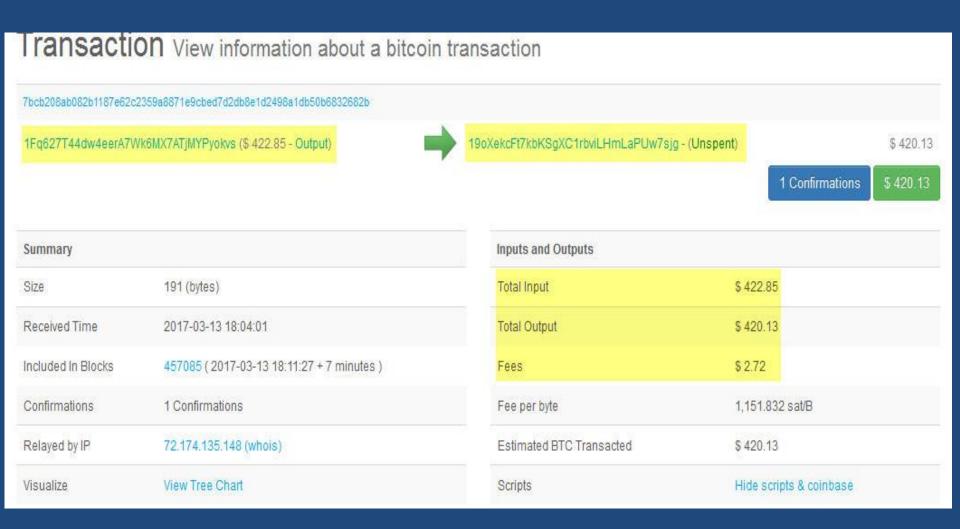
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A   B   C   D   E								
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1	2	•						
S	3	19oXekcFt7kbKSgXC1rbviLHmLaPUw7sjg	1Fq627T44dw4eerA7Wk6MX7ATjMYPyokvs	\$ 422.85	\$ 420.13	\$ 2.72		
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24 1MoPCQQGZkJsqWNAMtLei7ATecWovLeMTu (\$ 160.83 - Output)	22	14zdkm131L32mEFnEAqnaH6ZzJ6LgwuX6q (\$ 102.28 - Output)						
	23	18Ajn2N7HWUHuyoyVK4g8cuT9FvbcW9Arp (\$ 6.01 - Output)						
25 1AUWuY9MLc2AzW9Yi41ivqS9wMkEV5EPke (\$ 74.50 - Output)	24	1MoPCQQGZkJsqWNAMtLei7ATecWovLeMTu (\$ 160.83 - Output)						
	25	1AUWuY9MLc2AzW9Yi41ivqS9wMkEV5EPke (\$ 74.50 - Output)						
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# Google Sheets Shared Ledger



# See Changes Instantly

# Blockchain As Decentralized Ledger



FUNDS NEWS | Wed Feb 22, 2017 | 12:01am EST

# Northern Trust uses blockchain for private equity record-keeping









By Anna Irrera | NEW YORK

Feb 22 Northern Trust Corp has deployed a new blockchain-based system built with International Business Machines Corp to record information on transactions involving private equity funds, in one of the first commercial deployments of the nascent technology.

The program is currently being used to manage the administration of a private equity fund run by Switzerland-based asset manager Unigestion, Northern Trust and IBM said on Wednesday.

The new blockchain system records documents and information connected to transactions involving the fund, such as investments by limited partners, a process which is currently highly manual. Other than providing a central record for fund managers, investors and administrators, the program also allows regulators to access the information when required.

Blockchain Could Be a New Operating System for the Planet Says Jeremy Wilson, Vice Chairman of Barclays Corporate Banking

"It will change not just finance, but the lives of almost everyone, directly or indirectly"

By Richard Kastelein - February 20, 2017

611

"It will change not just finance, but the lives of almost everyone, directly or indirectly," he told The Economist's Finance Disrupted conference. "At the risk of overstating this, it looks as if it has the makings of a new operating system for the planet."

#### **New solutions**

Looking at areas in banking where Blockchain is already making an impact, Wilson identified trade finance and capital markets – citing a recent groundbreaking example: "Barclays have just done a pilot for trade finance, which usually involves a very long, complicated supply chain. It's a sophisticated process developed over hundreds of years. The most inefficient thing in it is a document called the bill of lading, which can take weeks to get to the other side of the planet. And if you use Blockchain, you can transform that.

"In the capital markets arena, it is becoming increasingly clear that Blockchain is driving down significantly the inefficiencies and costs in the transaction process surrounding the buying and selling of securities."

# German automobile giant Daimler AG joins Hyperledger blockchain project as premier member

Wednesday, February 22, 2017 4:36 AM UTC

0 comments

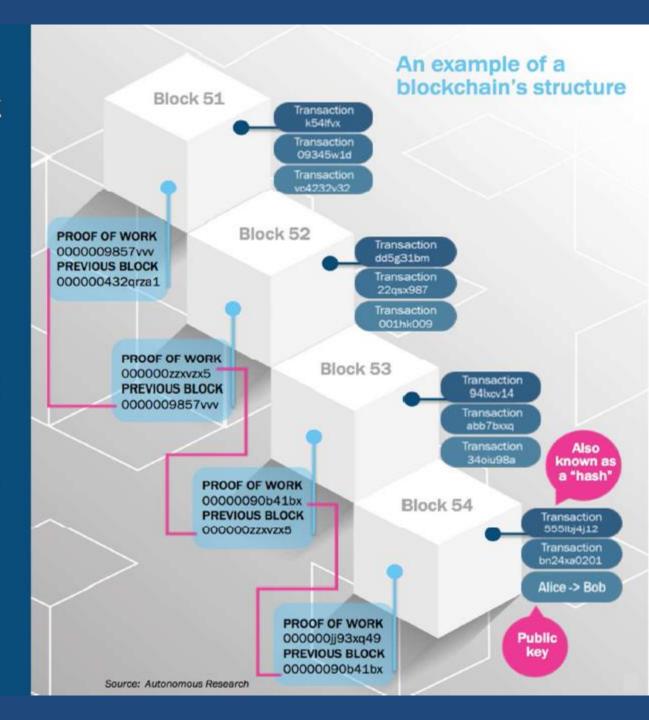
The Hyperledger Project, a collaborative cross-industry effort created to advance blockchain technology, has gained Daimler AG, one of the world's successful producers and manufacturers of finest vehicles, as its premium member.

# How Blockchain Transactions Work

Blockchains solve two major challenges for digital transactions, controlling the information and avoiding duplication, at once.

There are four major pieces of information in a block:

- An ID referred to as a "hash" or consensus identifier. In the example below, it's called "proof of work." This is a random set of encrypted numbers.
- The hash number from the previous block, which sets the chronological order in the ledger
- Transactions that are included in the block. Can be one, but can also be thousands of transactions.
- Public key (identities) for the sender and receiver to identify the transfer of information.



### **Cost-Cutting is the Big Hope**



We Estimate

\$54bn

annual clearing & settlement costs globally

30%

of these costs could be reduced by blockchain by 2021 \$16bn

of savings for the industry

**\$163bn** 

bank sales & trading costs globally

### Fun Facts

- 350 M Trillion "hashes" to achieve consensus
- 92% of all money resides on someone's server.
- SWIFT 15M payments/day & takes days to settle
- Trillions of US payments w/ Auto Clearing House
- Bitcoin settles on average in 10 minutes
- DTCC may embrace Distributed Ledger Technology

# Fun Facts SHA 256 Secure Hashing Algorithm

E67dbb2297d9a5fed215a628274d0a1630f862d 9582eeb50b6b6f5ea885a99fa

Aa73e92c46d13ef8f32dc86466761e1beb7157c9 27c0c6d70ebefe3c2aba1bc7

41386d91ee65265c8f4f644696ca4e52d2de6d80 a2968e6d6702a95b4e607ef

# Bitcoin Disrupts Venture Capital ICO vs Regulated IPO

# THE INITIAL COIN OFFERING, THE BITCOIN-Y STOCK THAT'S NOT STOCK—BUT DEFINITELY A BIG DEAL

NEXT MONTH. A venture capital firm called Blockchain Capital plans to do something that could change the way companies get funded—and perhaps even the way they operate. Instead of an Initial Public Offering, in which a company sells stock via a regulated exchange like Nasdaq, the San Francisco-based VC firm is making an Initial Coin Offering, selling its own digital token as a way of raising money for its latest venture fund. Anyone who buys a token will be buying into the fund.

Yes, they call it an ICO, and over the last 14 months, more than 60 startups, open source projects, and ragtag online communities used this method to raise over \$250 million for their own business efforts. "The data shows a ton of momentum at the end of the year," says Matt Chwierut, of Smith and Crown, a new research outfit that tracks this new phenomenon, "and that momentum has only continued."

# Bitcoin Disrupts Shipping Bill of Lading

siliconrepublic

BUSINESS







# How blockchain could save the shipping industry a fortune

by Gordon Hunt

7 MAR 2017



IBM and Maersk have teamed up to build a blockchain network to improve container shipping, a project that could save the entire industry billions of dollars every year.

IBM estimates that blockchain, if incorporated successfully, could save the container shipping industry billions of euros annually. It will do this by managing and tracking the trail of tens of millions of containers that constantly navigate the waves.



# Special Coverage: A blockchain-backed bill of lading

The success of a blockchain, which is essentially a specific type of database where time-stamped and authenticated digital records are compiled, is based on two foundational concepts: data immutability and the distributed nature of how data is assembled.

BY ERIC JOHNSON | MONDAY, DECEMBER 05, 2016



In mid-October, a buzzword that has been circling the financial world for years finally came into clear view in the world of supply chain.

- Say, for example, there are 10 parties involved in an international shipment. In a blockchain scenario, each of those parties would add the data elements for which they are responsible to the database and each would only be able to alter the data they provided, not the pieces submitted by the other parties.
- What's more, the accuracy of the data provided is theoretically ensured by the distributed nature of the data submission and by something called "computational trust," or cryptographic technologies.



"On the one hand, eliminating the middleman would result in lower costs, increased sales, and greater consumer satisfaction; on the other hand, we're the middleman."

## Bitcoin Disrupts "Middlemen"

Harvard Business Review

The Promise of Blockchain Is a World Without Middlemen

by Vinay Gupta

MARCH 06, 2017

Business Review

North Promise of Blockchain Is a World Without Middlemen

by Vinay Gupta

MARCH 06, 2017

Business Review

North Promise of Blockchain Is a World Without Middlemen

by Vinay Gupta

MARCH 06, 2017

## Real time Bitcoin Transactions

Latest Transactions		
edebd9887818dd876e38202c7	< 1 minute	\$ 994.61
1a3597e4741e0690f135eab1a	< 1 minute	\$ 20,080.08
3889bc95341b6389ddb80c3a5	< 1 minute	\$ 44.93
14d6a206d8df8fcde97fbd7de	< 1 minute	\$ 511.69
b3fa335b556ca31e3682fb707	< 1 minute	\$ 0.73
8a10503349acaf4f78d2a1379	< 1 minute	\$ 96.71
d26b8d7b97c225e36925a7cf8	< 1 minute	\$ 9.56
0ec58a6989acbece0e475ca21	< 1 minute	\$ 40.15
34beff579c913198aef2c2849	< 1 minute	\$ 23.36
c9f8aa8a2e2b24b39ebe6001c	< 1 minute	\$ 58.25

Courtesy: https://blockchain.info/

## Real Time

- https://blockexplorer.com/
- https://tradeblock.com/bitcoin/

## Bitcoin Disrupts Financial Services

### Why will Digitization Change Financial Services?

### Potentially significant cost savings and new opportunities

The annual cost savings potential from digitizing Post Trade services alone is estimated to be upwards of \$15 Billion\*.

In addition to potential billions in cost savings, new business models and businesses to be protected or created. As a result:

J.P.Morgan





























... and many have invested over \$1B in Blockchain technologies in 2015

## International Wire Transfer















## Bitcoin Disrupts Wire Transfers

Mowlana, Seiyid	RE: Wire transfer Cenacle Capital	Tue 3/26/2013 11:09 AM
Jennifer Shimanski	RE: Wire transfer	Mon 3/25/2013 11:30 AM
줮 🛭 Mowlana, Seiyid	RE: Wire transfer Cenacle Capital	Mon 3/25/2013 11:13 AM
🔒 🛭 Mowlana, Seiyid	FW: Wire transfer	Fri 3/22/2013 10:56 AM
🗎 🛭 Mowlana, Seiyid	FW: Wire transfer	Fri 3/22/2013 9:49 AM
🗎 🛭 Mowlana, Seiyid	RE: Wire transfer	Fri 3/22/2013 1:59 AM
🚄 🛮 Jennifer Shimanski	RE: Wire transfer	Wed 3/20/2013 9:26 AM
Jennifer Shimanski	RE: Wire transfer	Mon 3/18/2013 12:43 PM
Cenacle Capital Management: Bill Ulivieri	Re: Wire transfer	Mon 3/18/2013 12:25 PM
Jennifer Shimanski	RE: Wire transfer	Mon 3/18/2013 11:40 AM
Finance Accounts Payable UK	RE: Bank Details Required	Thu 3/14/2013 7:51 AM
Cenacle Capital Management: Bill Ulivieri	Re: Bank Details Required	Wed 3/13/2013 9:52 AM
Finance Accounts Payable UK	RE: Bank Details Required	Wed 3/13/2013 5:12 AM
🔒 🛭 Finance Accounts Payable UK	RE: Bank Details Required	Mon 3/11/2013 4:29 AM
Cenacle Capital Management: Bill Ulivieri	Fw: Bank Details Required	Wed 3/6/2013 11:24 AM
Finance Accounts Payable UK	RE: Bank Details Required	Wed 3/6/2013 11:03 AM
Finance Accounts Payable UK	RE: Bank Details Required	Wed 3/6/2013 4:03 AM
🔒 🛭 Finance Accounts Payable UK	RE: Bank Details Required	Tue 3/5/2013 9:01 AM
🔒 🛭 Becky Connery	Re: Re: FPA 2012 Fall Forum Template	Mon 2/13/2012 6:43 PM
Bill Ulivieri	Re: New Contact Info	Thu 12/31/2009 4:14 PM

## International Wire Transfer







# Bitcoin Disrupts International Remittance

### re·mit·tance

/rə mitns/

noun

a sum of money sent, especially by mail, in payment for goods or services or as a gift. synonyms: payment, money, fee; check; formal monies "send the form with your remittance"

- allowance, sum of money "a monthly remittance"
- the action of sending money in payment.

Translations, word origin, and more definitions

### International Remittance

"It is faster to mail an anvil to China that it is to send money through the banking system to China."

Erik Voorhees

"Money is already digital, it's not like they're shipping pallets of cash when you do a wire."

Erik Voorhees

"...you can send one-thousandth of a euro or one-millionth of a euro, you can send a billion or a trillion euros. The fee will be exactly the same, because fees depend on the size of the transaction in kilobytes, not on the amount or content."

Andreas M. Antonopoulos

## Paypal Money Sent 3.5% Fee

-		
Transac	ction	DOTABLE
i i ai isa	CUOIL	Detalls

Transaction ID: 54T98261LX2621439

November 28, 2016

Money sent

\$50.00 USD

Fee

\$1.75 USD

PAID WITH

**AMEX 1002** 

\$51.75 USD

You paid

\$51.75 USD

## Bitcoin Brings 4B Unbanked

- 4 billion with no banking facilities
- 2.5 billion more "underbanked" w/o credit
- WU Fees from 7% to 30% per transaction
- Eastman Kodak vs. Nokia. Never saw it coming
- Taxi Medallions Were \$500K; Now \$80K

### 72% of Economy Uses a Cell Phone



Image: CNN.com

"It took Western Union 150 years to build 500,000 points of sale around the world. What is the point today, when more than half the world's population owns a cellphone?"



M-Shwari, the new banking product that seeks to widen financial access amongst Kenyans has roped in 645, 000 savers in a span of three weeks since launch in an emerging case study that sets the pace for accelerated financial inclusion within the Kenyan economy.

Since the launch of M-Shwari - a banking product of the Commercial Bank of Africa (CBA) offered through Safaricom's M-PESA platform - on November 27th, an average of 40,000 Kenyans have been signing up to the service daily, making its uptake one of the most compelling financial services propositions in recent years.

## Bitcoin Will Disrupt **FOREX** Markets

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## Blockchain Replaces Trusted Party

### Libor scandal

From Wikipedia, the free encyclopedia

The Libor scandal was a series of fraudulent actions connected to the Libor (London Interbank Offered Rate) and also the resulting investigation and reaction. The Libor is an average interest rate calculated through submissions of interest rates by major banks across the world. The scandal arose when it was discovered that banks were falsely inflating or deflating their rates so as to profit from trades, or to give the impression that they were more creditworthy than they were.<sup>[3]</sup> Libor underpins

#### Scale of the scandal

This dwarfs by orders of magnitude any financial

## False Affidavits in Foreclosures: What the Robo-Signing Mess Means for Homeowners

### Wells Fargo's Sales Scandal Just Got Bigger

Jpdated: Nov 04, 2016 2:10 AM Central







Wells Fargo (WFC, +1.61%) fired hundreds of brokerage employees for improper sales practices, three U.S. senators said on Thursday, widening the scope of a scandal which the fourth-largest U.S. bank has so far characterized as a retail king problem.

### Trader Don Wilson Faces Potential Lifetime Ban as Trial Begins

Market-manipulation trial has high stakes for founder of DRW Investments and for CFTC

### Direct Charitable Donations Instantly

### United Way To Accept Bitcoin Digital Donations

United Way Worldwide (UWW) is joining the digital currency world, announcing currency.



### Foundation Based On Bitcoin Wins Nonprofit Status

A foundation in Sacramento, Calif., is claiming that it is the first bitcoin-based charity to be granted

## **Payment Details** Payment method: Credit card Direct debit Bill me later Payment Processed by Blackbaud Cardholder name: Card number: DISCOVER VISA AMERICAN EXPRESS Expiration: month vear CSC: **Donate**

Receive Micro Donations From Five Billion people

Credit Card is a privilege

## The Donor of the Future...



...is a computer streaming cash

### The Promise of Blockchain Is a World Without Middlemen

Here are five basic principles underlying the technology.

### 1. Distributed Database

Each party on a blockchain has access to the entire database and its complete history. No single party controls the data or the information. Every party can verify the records of its transaction partners directly, without an intermediary.

#### 2. Peer-to-Peer Transmission

Communication occurs directly between peers instead of through a central node. Each node stores and forwards information to all other nodes.

### 3. Transparency with Pseudonymity

Every transaction and its associated value are visible to anyone with access to the system. Each node, or user, on a blockchain has a unique 30-plus-character alphanumeric address that identifies it. Users can choose to remain anonymous or provide proof of their identity to others. Transactions occur between blockchain addresses.

### 4. Irreversibility of Records

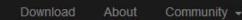
Once a transaction is entered in the database and the accounts are updated, the records cannot be altered, because they're linked to every transaction record that came before them (hence the term "chain"). Various computational algorithms and approaches are deployed to ensure that the recording on the database is permanent, chronologically ordered, and available to all others on the network.

### 5. Computational Logic

The digital nature of the ledger means that blockchain transactions can be tied to computational logic and in essence programmed. So users can set up algorithms and rules that automatically trigger transactions between nodes.

## Bitcoin Matrix

Rank	Ticker	Name	Buys	X's	Total	Tech Attribute/ Score		F X S G	F X S	F X E	F X C	F X B	F X Y	F X A	F X F	S L V	M N Y M K T	G L D	B T C O I N
1	BITCOIN	Bitcoin	11	10	21	3.00.	p.	ВХ	ВХ	ВХ	ВХ	ВХ	ВХ	ВХ	вх	ВХ	ВХ	ВХ	
2	GLD	SPDR Gold Trust	9	1	10	1.77	<b>[</b> ]	ВО	ВО	во	so	ВО	во	во	во	ВО	ВХ		SC
3	MNYMKT	DWA Money Market Proxy - 13 Week T-Bill	8	6	14	1.69	<b>[</b> ]	ВХ	ВХ	вх	во	ВХ	вх	во	ВХ	ВО		SO	SC
4	SLV	iShares Silver Trust	7	9	16	2.32	<b>;</b>	ВХ	SX	вх	ВХ	ВХ	вх	во	ВХ		SX	SX	SC
5	FXF	CurrencyShares Swiss Franc	6	4	10	0.69	<b>;</b>	ВО	ВХ	во	во	ВХ	SX	во		SO	SO	SX	SC
6	FXA	CurrencyShares Australian Dollar Trust	4	10	14	3.50	p.	SX	ВХ	вх	ВХ	вх	SX		SX	SX	SX	SX	SC
7	FXY	CurrencyShares Japanese Yen Trust	3	3	6	0.87	p.	ВО	SO	SX	SO	SO		ВО	во	SO	SO	SX	SC
8	FXB	CurrencyShares British Pound Sterling Trust	3	2	5	0.13	<b>;</b>	SO	ВО	SO	во		ВХ	SO	SO	SO	SO	SX	SC
9	FXC	CurrencyShares Canadian Dollar Trust	2	6	8	0.49	p.	SO	SX	SX		SX	вх	SO	SO	SO	SX	вх	SC
10	FXE	CurrencyShares Euro Trust	2	5	7	0.63	p.	SX	ВХ		ВО	ВХ	во	SO	SX	SO	SO	SX	SC
11	FXS	CurrencyShares Swedish Krona Trust	2	3	5	1.03	p.	SO		SO	во	SX	вх	SO	SO	SO	SO	SX	SC
12	FXSG	CurrencyShares Singapore Dollar Trust	1	6	7	0.47	p.		ВХ	во	ВХ	ВХ	SX	во	SX	SO	SO	SX	SC





Welcome to a new era of cloud storage on the blockchain

### Calculate your savings

#### How many TB?

100

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Storage Provider	Monthly Storage Cost	Download Bandwidth Cost	Private	Decentralized	Included Multi Region Redundancy
Sia	\$200	\$100	<b>~</b>	<b>~</b>	✓
Amazon S3	\$2,300	\$9,200	×	×	×
Google Cloud	\$2,000	\$11,000	×	×	×
Microsoft Azure	\$2,400	\$8,700	×	×	×