

Future of Blockchain and Global Economy

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광주 TP

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3층 중회의실

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- 1. 시행 일정 / 장소 : 9. 3(화) 16:30 ~ 18:00 / 광주TP 3층 중회의실
-
- 2. 참석대상 : 광주산학연 협의회 기업 대표(세부내용 첨부 참조) 및 광주TP 임직원
-
- 3. 강의 요청 내용
 - 가. 블록체인 개념 및 활용분야, 관련기술에 대한 소개 : 중점
 - 나. 블록체인 및 관련기술에 대한 광주지역 산업(기업) 적용 가능 방안 소개 : 해당시
 - 다. 광주지역 산업(기업)이 블록체인 및 관련기술에 참여할 수 있는 분야(방안) 소개 : 해당시

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Flow of talk

- Birth of Bitcoin, any meaning?
- Bitcoin and blockchain, how do they work?
- Adam Smith's world economy
- GIST의 블록체인 교육과 연구 현황
- Concluding remarks

Economy, Currency, Government

- People want an *ever improving state of self* and economic position compared to what they have enjoyed in previous years.
- **Gov. needs to provide** what people want.
 - Food and house
 - Energy and water
 - Safer environment
 - Less work but improved life style with leisure
 - Equal opportunity for limited resources
 - Improved education for children
 - Arts, science, engineering, entertainment

Financial Crisis, FED and LSAPs

Financial Panic 07 ~ 08

Housing bubble popped!

Bankruptcy of Lehman Brothers

Fed lowers interest rate.

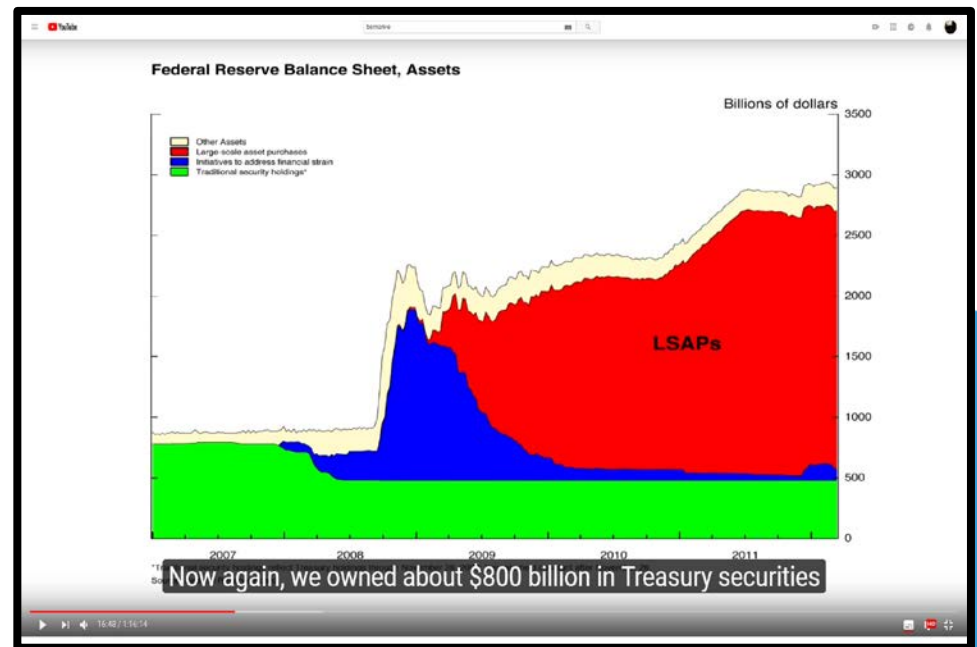
Housing and Economic Recovery Act of 2008

Too Big to Fail Problem

Fed saves AIG, Goldman Sachs,
Morgan Stanley

Large Scale Asset Purchases (QE)

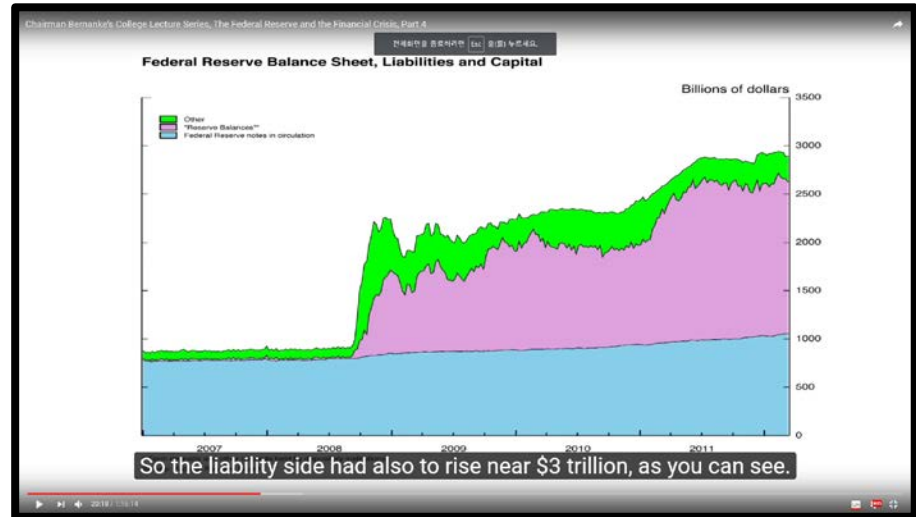
- Control long-term supplies of securities
- Raising the price of these assets
- Lowering the long term interest rate.



How did they pay for LSAPs?

the liability side had also to rise near \$3 trillion... But as a literal fact, **the Fed is not printing money to acquire these securities**. The amount of currency in circulation has not been affected by these activities. What has been affected is the purple area. Those are the accounts that banks, commercial bank, holds with the FED. They are part of what's called the monetary base. But again, they are not – they certainly aren't cash.

Watch for yourself right here.



Reforming Wall Street

Wall Street cannot continue to be an island unto itself, **gambling trillions in risky financial decisions** while expecting the public to bail it out.

It is time to break up the largest financial institutions in the country.

The **six largest financial institutions** in this country today hold assets equal to about 60% of the nation's gross domestic product. These six banks issue more than two thirds of all credit cards and over 35% of all mortgages. **They control 95% of all derivatives and hold more than 40% of all bank deposits in the United States.** We must break up too-big-to-fail financial institutions. Those institutions received a **\$700 billion bailout** from the US taxpayer, and more than **\$16 trillion in virtually zero interest loans** from the Federal Reserve. Despite that, financial institutions made over \$152 billion in profit in 2014 – the most profitable year on record, and three of the four largest financial institutions are 80% bigger today than they were before we bailed them out. Our banking system must be part of the productive, job-creating economy. The Federal Reserve, a government entity which serves as the engine of the banking industry, must eliminate its internal conflicts of interest, provide stricter oversight, and **insist that the banks serve the economy in a way that works for everyone, not just a few.**



The Evolution of Trust

Scientific American 318, 38 - 41 (2018)
Published online: 19 December 2017
| doi:10.1038/scientificamerican0118-38

Natalie Smolenski

- Banks and governments have in many ways failed to broker trust for the global economy, especially in the past few decades. Ordinary people have grown wary of centralized power and are seeking alternatives.
- Bitcoin—and blockchain technology in general—allows the brokering of trust to be shifted toward machines and away from human intermediaries such as bankers. This technology could design exploitation out of the system instead of punishing it later.
- Blockchains lend themselves both to human emancipation and to an unprecedented degree of surveillance and control. How they end up being used depends on how the software handles digital identity.

I am the 1%. Let's talk!

- Con:
 - FED, TARP, LSAPs.
 - Gov. deficit spending
 - Socialism
 - Regulations
- Pro:
 - Small government
 - **Free market capitalism**
 - **Entrepreneurship**
 - Making money means creating jobs with new goods and services.
- 50% of his income goes to tax.
- If he did not pay the tax, he could have re-invested and created more jobs.
- US Economy is a bubble economy about to collapse.



● Peter Schiff at Occupy Wall Street "I am the 1%. Let's Talk"

조회수 1,265,631회

👍 2.9만 💬 2천 ➦ 공유 📌 저장 ...

At the birth of Bitcoin, there were many issues which made us to think!

- Today, currency is not money.
 - USD does not have any internal value (No more gold standard).
 - Currency is created by banks when someone takes out a loan or government issues bonds (I.O.U.) to banks, or by **increasing an electronic balance** to the commercial banks **at the whim of FED**.

- With frequent financial crises, trust to gov. has been greatly tarnished.
 - People are grown wary of budget deficit and currency expansion.

- Issues around bitcoin are
 - Decentralization
 - Reforming Wall Street
 - Unbundling big corporations
 - Reducing inequality

Birth of Bitcoin

Trust enabled by peers

Bitcoin: A Peer-to-Peer Electronic Cash System

Satoshi Nakamoto
satoshin@gmx.com
www.bitcoin.org

Abstract. A purely peer-to-peer version of electronic cash would allow online payments to be sent directly from one party to another without going through a financial institution. Digital signatures provide part of the solution, but the main benefits are lost if a trusted third party is still required to prevent double-spending. We propose a solution to the double-spending problem using a peer-to-peer network. The network timestamps transactions by hashing them into an ongoing chain of hash-based proof-of-work, forming a record that cannot be changed without redoing the proof-of-work. The longest chain not only serves as proof of the sequence of events witnessed, but proof that it came from the largest pool of CPU power. As long as a majority of CPU power is controlled by nodes that are not cooperating to attack the network, they'll generate the longest chain and outpace attackers. The network itself requires minimal structure. Messages are broadcast on a best effort basis, and nodes can leave and rejoin the network at will, accepting the longest proof-of-work chain as proof of what happened while they were gone.

Genesis Block

- The Times 03/Jan/2009
Chancellor on brink of second bailout for banks
- The Chancellor will decide within weeks whether to pump billions more into the economy as evidence mounts that the £37 billion part-nationalisation last year has failed to keep credit flowing.
- Options include cash injections, offering banks cheaper state guarantees to raise money privately or buying up "toxic assets", *The Times* has learnt.

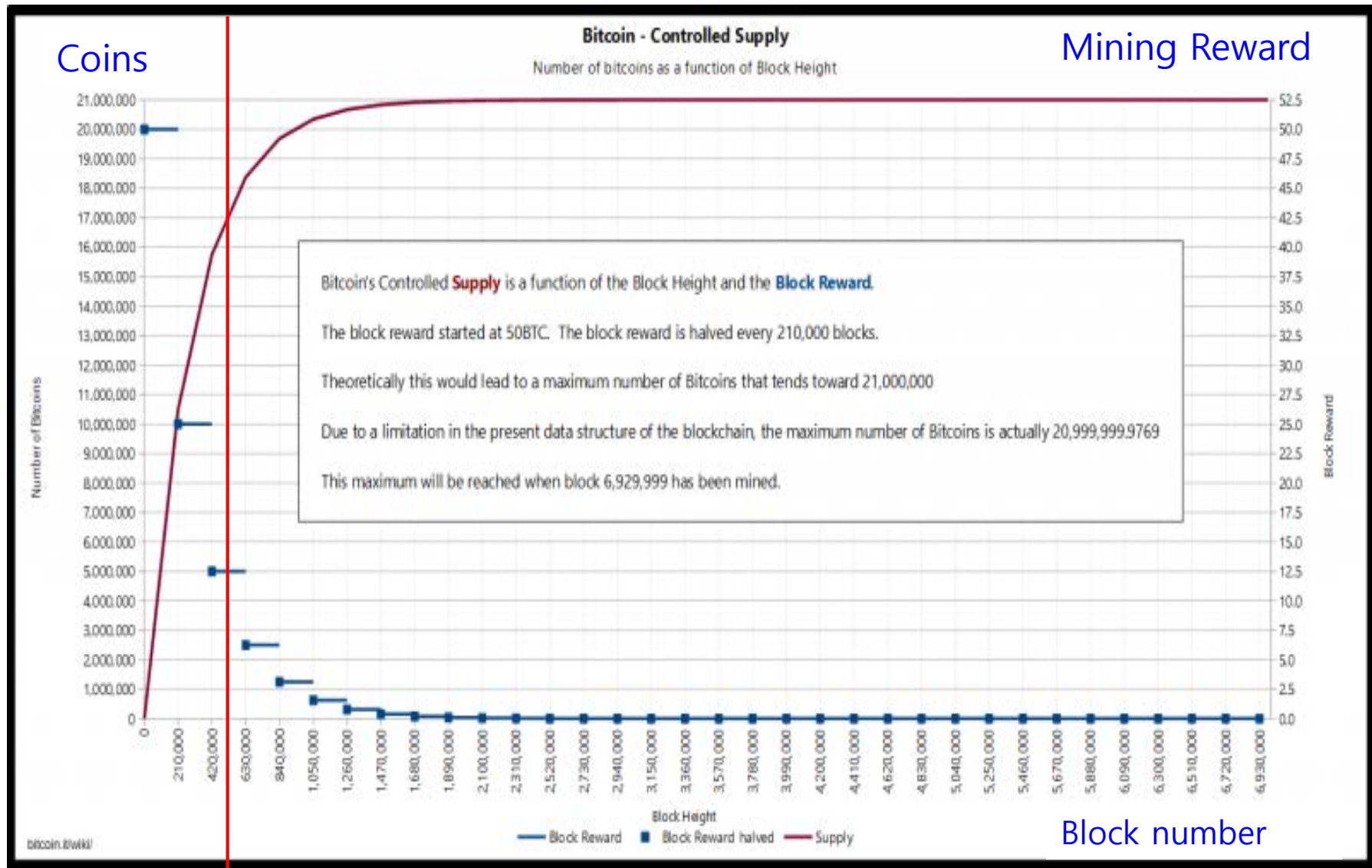


https://en.bitcoin.it/wiki/Genesis_block

Bitcoin

- Since birth in 2009, bitcoin has never been stopped breathing and is alive currency system.
- It is a global digital currency which works beyond national boundaries.
- It was born when trust on the banks and governments was severely degraded.
- It mints bitcoins every 10 min.

Bitcoin' Minting Schedule

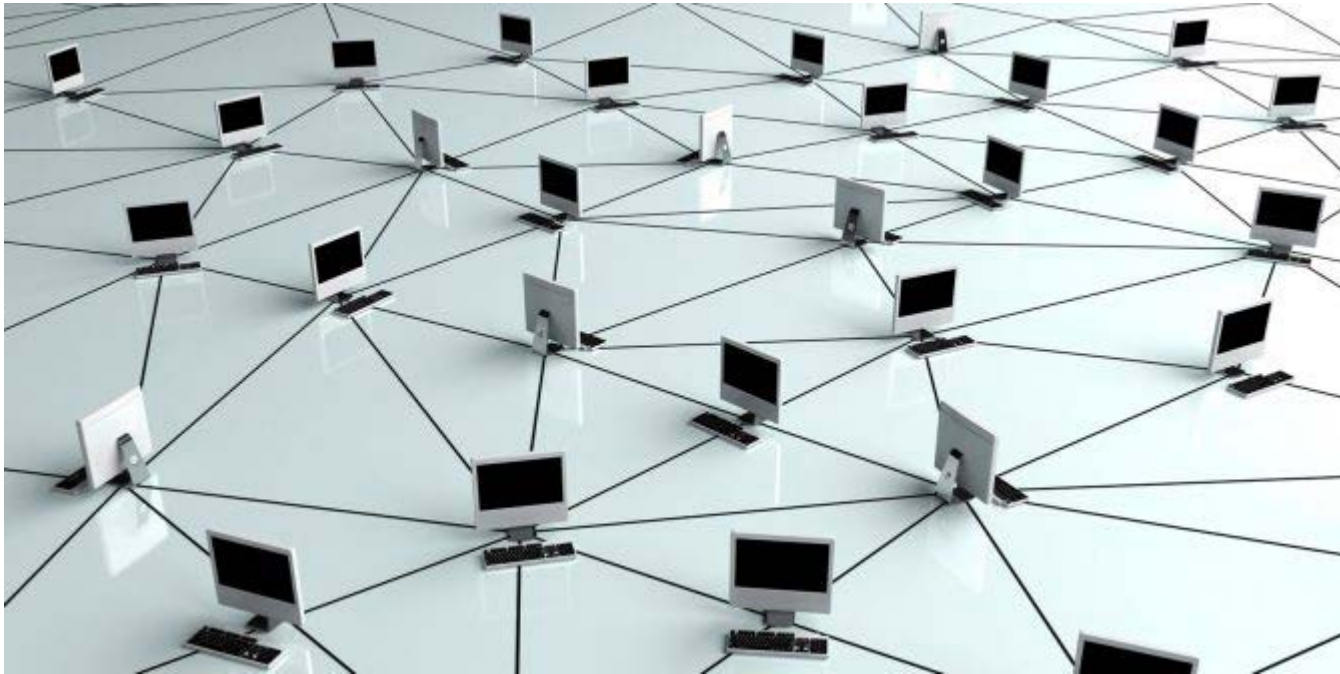


How does Bitcoin work?

Bitcoin uses the internet.

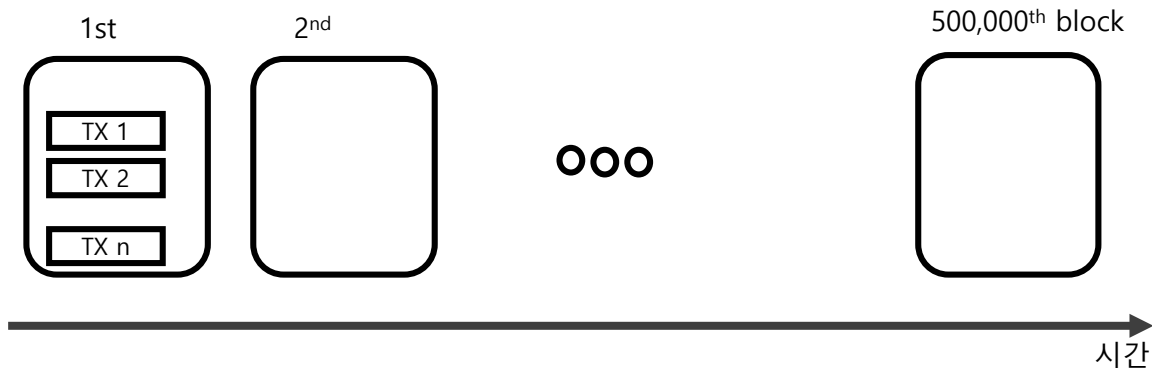


Bitcoin attracts P2P nodes.



P2P nodes share a blockchain.

- Blockchain is to mean a digital ledger:
 - Blockchain is a chain of blocks.
 - Each block is time stamped.
 - Each block stores TXs.
- Blockchain also implies the technology itself.



The blockchain is open for viewing.

- The digital ledger is left open.
- Anyone can talk to a node and view the ledger. (Public Blockchain)

These ledgers are the same except the most recent blocks.

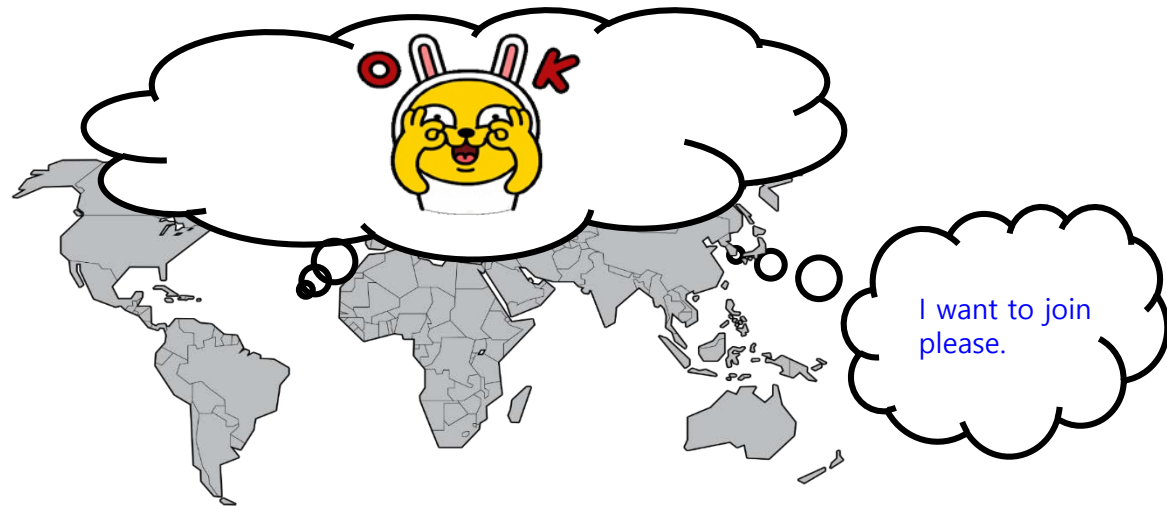
A ledger in America



A ledger in Korea

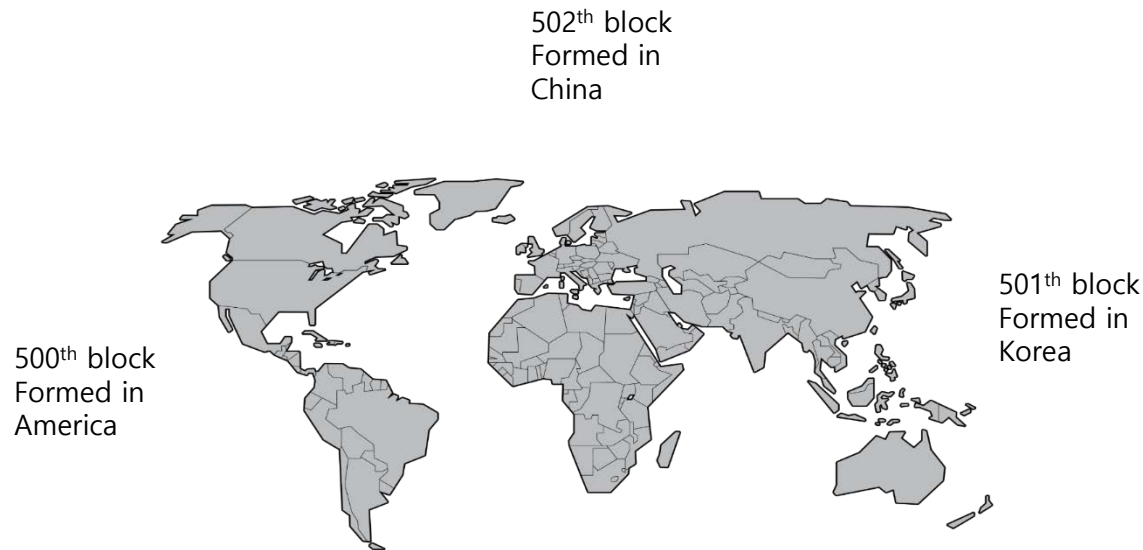
Any new node can join.

- In the public blockchain network, anyone can join and become a guard (miner).



Miners are everywhere.

- Each block is formed by a node.
- A node gathers TXs, validates them, forms a block.
- As a reward, **the node which formed a block** is given to mint coins and keep them (e.g. 12.5 BTC).
- Thus, they are called **miners**.



Consensus mechanism plays the key role in blockchain.

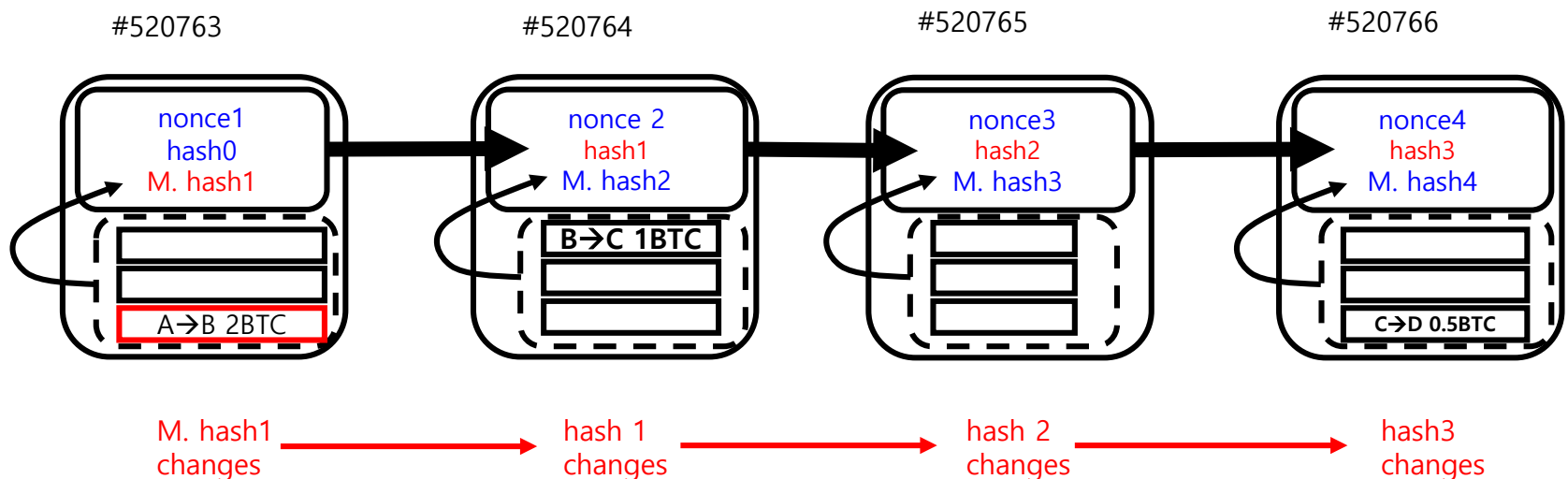
- Multiple different chains are possible, as miners work independently.
- When any two chains are available, miners choose the longer one!

Which one wins when there are two chains announced?



Content in the blockchain cannot be changed (easily).

- What happens when any alteration is made?
- Any alteration is easily noticeable!
- If an unnoticeable change were wanted, the whole alteration would be needed.
- The whole alteration is to redo all the hashes of the subsequent blocks.
- Proof-of-Work (PoW) is imposed to the chain and thus the whole job cannot be redone easily.
- Immutability and openness allow one to transact with the other over the internet.
 - A → B 2 BTC
 - B → C 1 BTC
 - C → D .5BTC



Blockchain is a Program Suite.

블록체인 구성 요소 3가지

1. Networking of P2P nodes over the web interface

- Node registration, get-address, give-address
- Full node or light node
- Communication among the wallets and the miners

2. Wallet app for TX generations

- Make private and public keys, address, store UTXOs, make TX, put signature, announce it to the neighbor, check to see if the TX is supported by the blockchain.

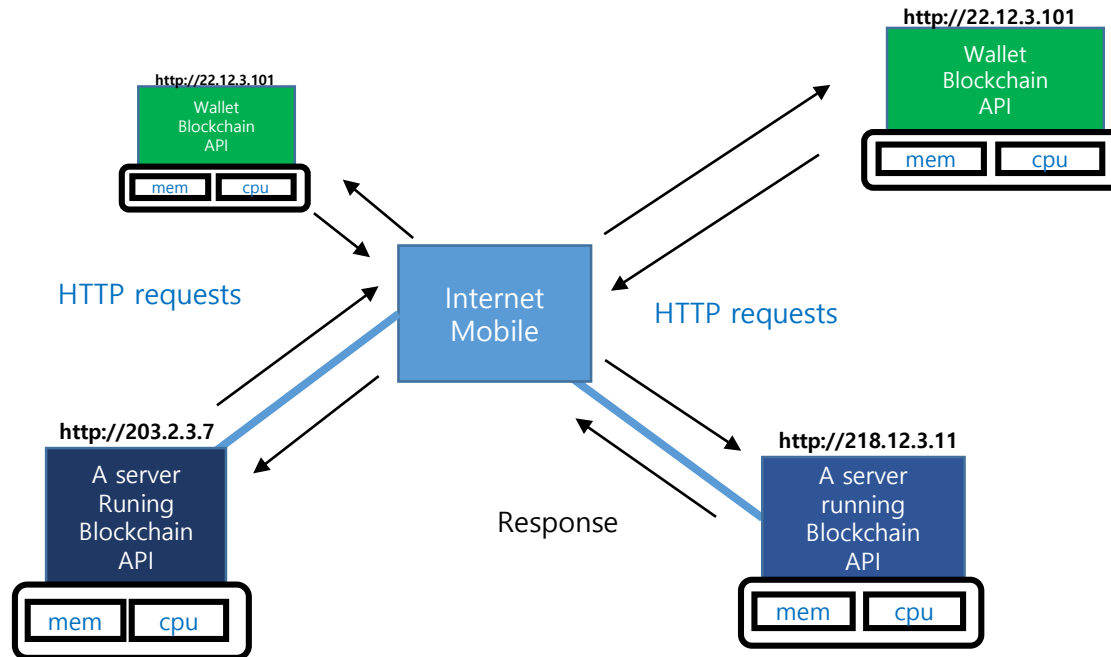
3. Blockchain Protocol

- **Data**: Genesis block + regular blocks, one block every 10 min, block-size 1Mbyte
- **Protocol**: consensus, block header, difficulty level adjustment, ...
- **Mining**: Get the longest chain, **validate** it and all transactions within it, get transactions from mempool and form a block, **run SHA repeatedly until you hit a good hash**, put the proof into the block header, and attach the proofed block to the longest chain, and make announcement ASAP.

Program Suite

- C++, Python, Go, Java, Flask, http
- Download and run, then you have a blockchain server.

Anybody who downloads and runs the blockchain suite can become the member of
the blockchain internet



Bitcoin Blockchain Verticals

- Decentralized
- Public
- Immutability
- Trust
- Minting coins
- **Anonymity**

Worldwide Crypto Industry

- Master designer
 - Minting schedule, TPS, Incentive Mechanism, Master plan
- Developers
 - Maintain the system
 - SW upgrades
- Users
 - Payments, assets
- Miners

Unexpected but there are

- Exchanges
- Investors
- Crowd funding: ICO

Multiple Perspectives on Cryptos

- Digital currency
 - Medium of exchange, storage of value, stability of value
- Digital assets
- Commodities
- Payment methods

ICO

- Startups in the blockchain world use Initial Coin Offering (ICO) as a tool to raise funds.
- Reference: <https://icowatchlist.com/education/history-and-evolution-of-icos>

ICO, how did it get started?

- “We claim that the existing bitcoin network can be used as a protocol layer, on top of which **new currency layers with new rules can be built** ...
- ... **initial funds to hire developers to build software** which implements the new protocol layers, and ... **will richly reward early adopters** of the new protocol.”
- **Mastercoin** raised close to **5,000 bitcoins** or **\$500,000** 2013.
- <https://www.forbes.com/sites/laurashin/2017/09/21/heres-the-man-who-created-icos-and-this-is-the-new-token-hes-backing/#36db35661183>



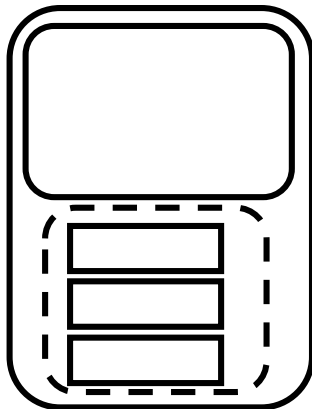
J.R. Willett, the founder of the ICO
COURTESY OF J.R. WILLETT

Ethereum

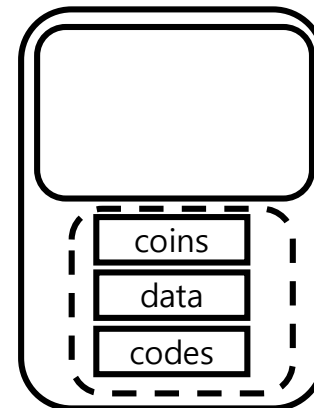


- It allows full computer codes in blockchain.
- Blockchain is platformized **so that anyone can use**.
- Smart contracts and tokens can be generated easily.
- Decentralized applications (Dapp) are proliferated.

Bitcoin only
records coin TXs



Ethereum allows
data and codes as well



The Ethereum's block that stored the Panmunjeom Declaration

Overview Comments

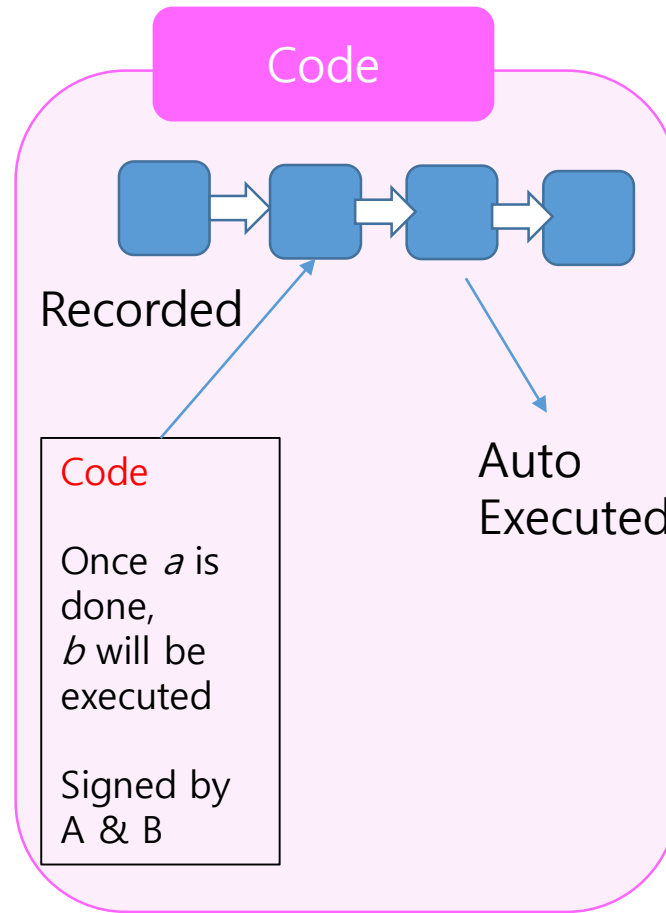
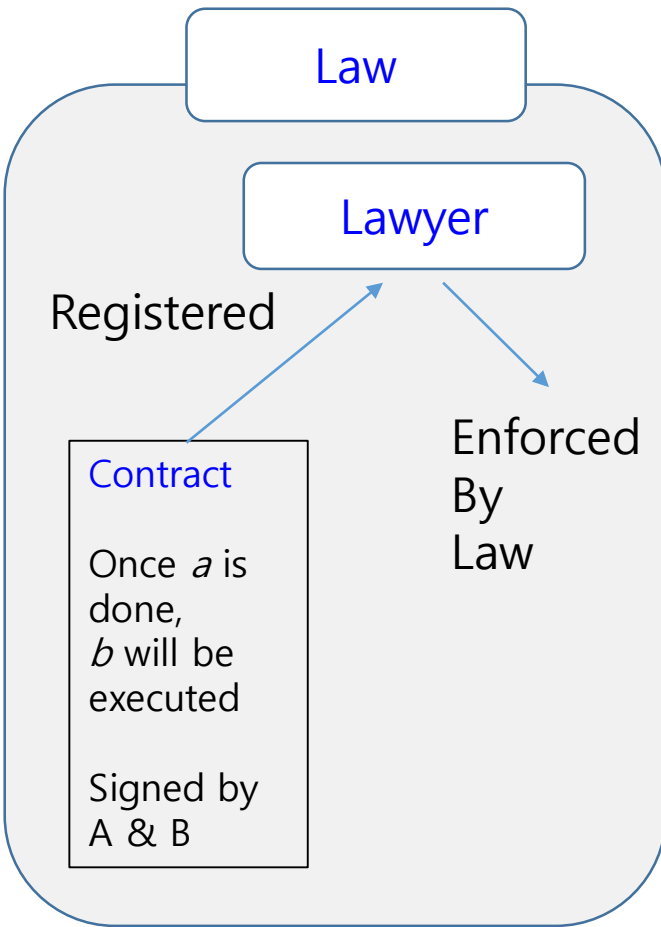
Transaction Information

TxHash:	0xe4ee15d3f63db8464a649e3237ed83e930f9b3e40e842537a626745d1c96553c
TxReceipt Status:	Success
Block Height:	5517596 (1257 block confirmations)
TimeStamp:	5 hrs 13 mins ago (Apr-28-2018 12:00:37 AM +UTC)
From:	0xe484c512c156c7f30c85cf432b8e2e70fd499058
To:	0xe456064545f872b311ae7432889a0fece90c9a29
Value:	0 Ether (\$0.00)
Gas Limit:	800000
Gas Used By Txn:	434032
Gas Price:	0.000000012 Ether (12 Gwei)
Actual Tx Cost/Fee:	0.005208384 Ether (\$3.47)
Nonce:	0
Input Data:	<pre>0x2018년 4월 27일 한반도 판문점 선언 1. 남과 북은 남북 관계의 전면적이며 획기적인 개선과 발전을 이룩함으로써 끊어진 민족의 활맥을 잇고 공동번영과 자주통일의 미래를 앞당겨 나갈 것이다.</pre> <p>Switch Back</p>
Private Note:	<To access the private Note feature, you must be logged in >



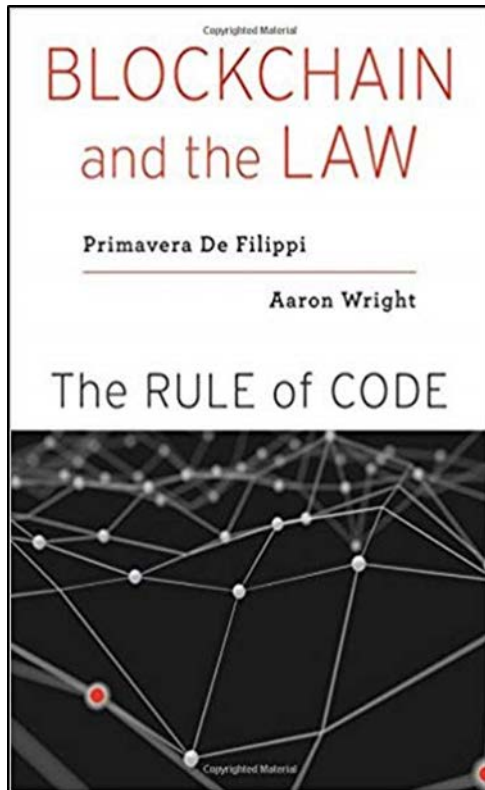
2018.04.28

Legal Contracts vs. Smart Contracts



- Sharing Economy
- Insurance
- Voting
- MediChain
- Real Estate
- Law

Lex Cryptographia



In this Article, we explore the benefits and drawbacks of this emerging decentralized technology and argue that its widespread deployment will lead to expansion of a new subset of law, which we term Lex Cryptographia: rules administered through self-executing smart contracts and decentralized (autonomous) organizations. As blockchain technology becomes widely adopted, centralized authorities, such as governmental agencies and large multinational corporations, could lose the ability to control and shape the activities of disparate people through existing means. As a result, there will be an increasing need to focus on how to regulate blockchain technology and how to shape the creation and deployment of these emerging decentralized organizations in ways that have yet to be explored under current legal theory.

* Assistant Clinical Professor of Law and Director of the Cardozo Tech Startup Clinic, Benjamin N. Cardozo School of Law, Yeshiva University; Founder/Director of the Cryptocurrency Research Group.

** Research fellow at the Berkman Center for Internet and Society at Harvard Law School and associate researcher at the CERSA / CNRS / Université Paris II.

Problems with Blockchains

- Astronomical cost for mining
- Smart contracts
 - Bugs
 - Compliance with the law?
- *Decentralization?*
 - *Mining pools are re-centralized.*
- Not very convenient and useful as a currency (medium of exchange, storage of value)
 - Slow transactions speed, price fluctuation
- Possibilities of cyberattacks and hacking.
 - Availability of renting services of mining equipment.
 - Astronomical amount of assets were lost due to 51% attacks, such as Monacoin, Bitcoin Gold, Zencash, Verge, Litecoin cash...

Proliferation of ICO projects, BUT

- Be careful!
 - 98% of ICOs done in 2017/2018 did not fulfill their obligations!
 - Not many research articles either!
 - White papers are not peer reviewed!

Scalable DeSecure Blockchain 개발/보급 사업

- 부호-암호 화폐 시스템 (GIST특허 2018)
 - Error-Correction Code 기반 PoW
 - 재-중앙화 문제 해결 (SHA함수에 전적으로 의존 ASIC칩)
 - 누구나 화폐 발행에 참여 가능
- 세월의 검증을 이겨낸 Bitcoin과 Ethereum의 합의알고리즘에 적용, 보급, 확산 계획
- 탈 중앙적이며 안정적인 Bitcoin과 Ethereum 보급
 - Scalability 문제 해결
- Funded by GIST and IITP
- 기술개발과 인력양성으로 인한 산업 효과

블록체인/암호화폐 산업 전망

- 4차 산업혁명의 핵심 철학과 과를 같이한다.
 - 개방, 공유, 협력, 신뢰, 혁신, 집단지성
- 모든 것들이 연결되고, 상호협력하여 기능을 한다.
 - Things 들간 유기적 연결: 암호화폐, 공동 목표 달성 위해 협력
 - 자동차와 자동차간의 협력
 - 드론 과 드론 간의 협력
 - 센서와 센서 간의 협력
 - 소비자와 공급자간 협력

World Economy

- Adam Smith—Wealth of Nations
 - Wealth is **productivity of labor** force
 - Prosperity is achieved through division of labors
 - Limited by **the extent of free market**
 - World peace through trades
 - Help the poor, advance science, arts, education
 - Happiness pursuing enlightened self interest

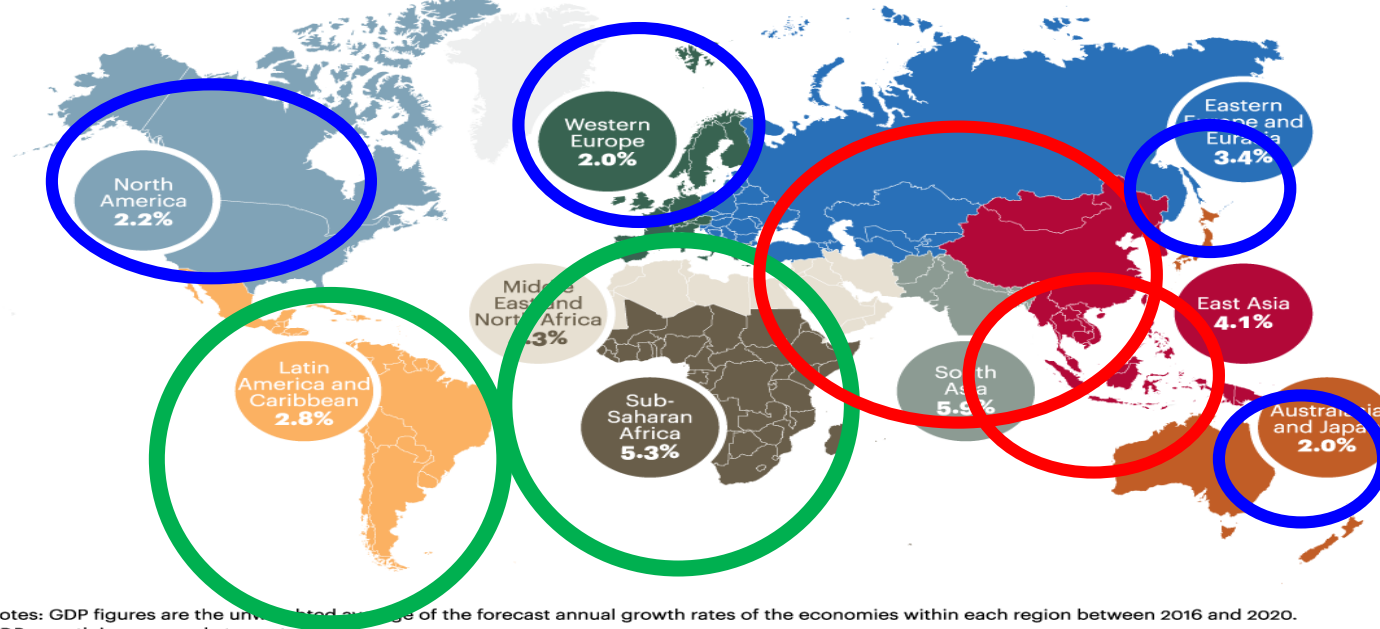
World with More People of Freedom

Figure 2

Regional growth rates vary, with South Asia and Sub-Saharan Africa leading the pack

Real GDP growth

%, 2016–2020 annual average



Notes: GDP figures are the unweighted average of the forecast annual growth rates of the economies within each region between 2016 and 2020. GDP growth is measured at constant prices.

Sources: International Monetary Fund World Economic Outlook (October 2015 and January 2016); A.T. Kearney analysis




- 4차 산업 존
- 저성장, 양극화
 - 고령사회
 - 혁신성장 지속 필요

- 3차 산업 존
- 빠른 성장
 - 신뢰, 반부패

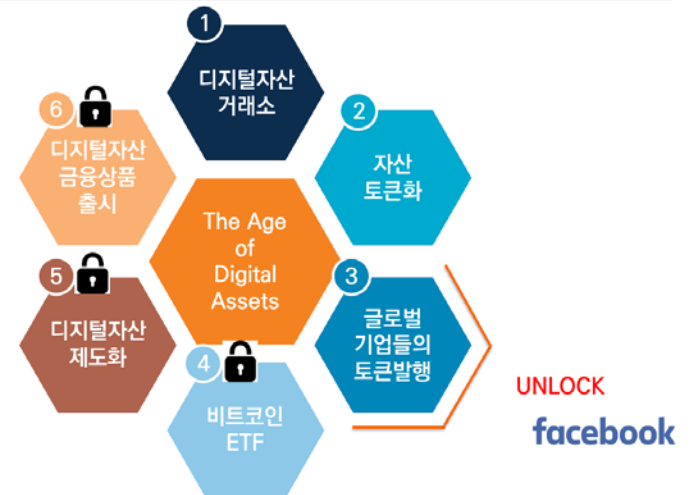
- 1, 2 차 산업 존
- 물, 에너지, 주택 등
기반 구축 필요

Libra White Paper

② 리브라 vs 비트코인 vs 이더리움

구분			
블록체인	비트코인 블록체인	이더리움 블록체인	리브라 블록체인
합의 알고리즘	작업증명 (PoW)	작업증명 (Pow) 추후 지분증명(PoS)으로 전환 예정	리브라BFT (지분증명, BFT)
거버넌스	퍼블릭	퍼블릭	허가형 추후 퍼블릭으로 전환 예정
노드 수	10,284 개	6,495 개	100 개 (추후 변동 가능)
TPS	3-5 (최근 1년 평균 3.26)	15-20	1,000-1,500
사용 언어	스크립트 언어	Go, Solidity, 파이썬 등	Move
튜링완전성	낮음	높음	높음
스마트계약	온체인에서 지원 어려움	지원 가능	지원 가능
토큰 신규 발행	제공	제공	수요/공급 확인 후 합의
토큰 수량	2,100만개	제한 없음	제한 없음
가격 변동성	높은 위험	높은 위험	낮은 위험
탈중앙화	高		低
확장성	低		高
담보	없음	없음	리브라 리저브 (선진국 국제 & 주요국 하드커런시)

② 리브라란 촉매제의 등장, 디지털자산 시장의 도래를 앞당기다



이용재, “페이스북 리브라 충격, 영향, 향후 변화,” 블록체인법학회 8월 세미나, 8월 26일 2017.

IDEAS

The Trouble Starts If Facebook's New Currency Succeeds

Libra will almost exactly replicate all the problems generated by the company's social network.

JUN 25, 2019

Eric Posner

Professor at the University of Chicago Law School

Facebook, one of the world's most distrusted companies, wants us to trust its new Libra cryptocurrency, which, it hopes, will be used by billions of people around the world. We shouldn't. Libra will almost exactly replicate all the problems generated by Facebook's social network. Those problems can in turn be traced to the central paradox of Big Tech: The technological innovation that is supposed to liberate us from government ends up subjugating us to a handful of corporations.

The key insight underlying Libra is that the transfer of money from person to person is similar to the transfer of information. "Moving money around globally," Facebook [declares in the white paper](#) laying out the company's vision for its new cryptocurrency, "should be as easy and cost-effective as—and even more safe and secure than—sending a text message or sharing a photo." Money is information: When I send money to you, I'm telling the financial system that wealth holdings

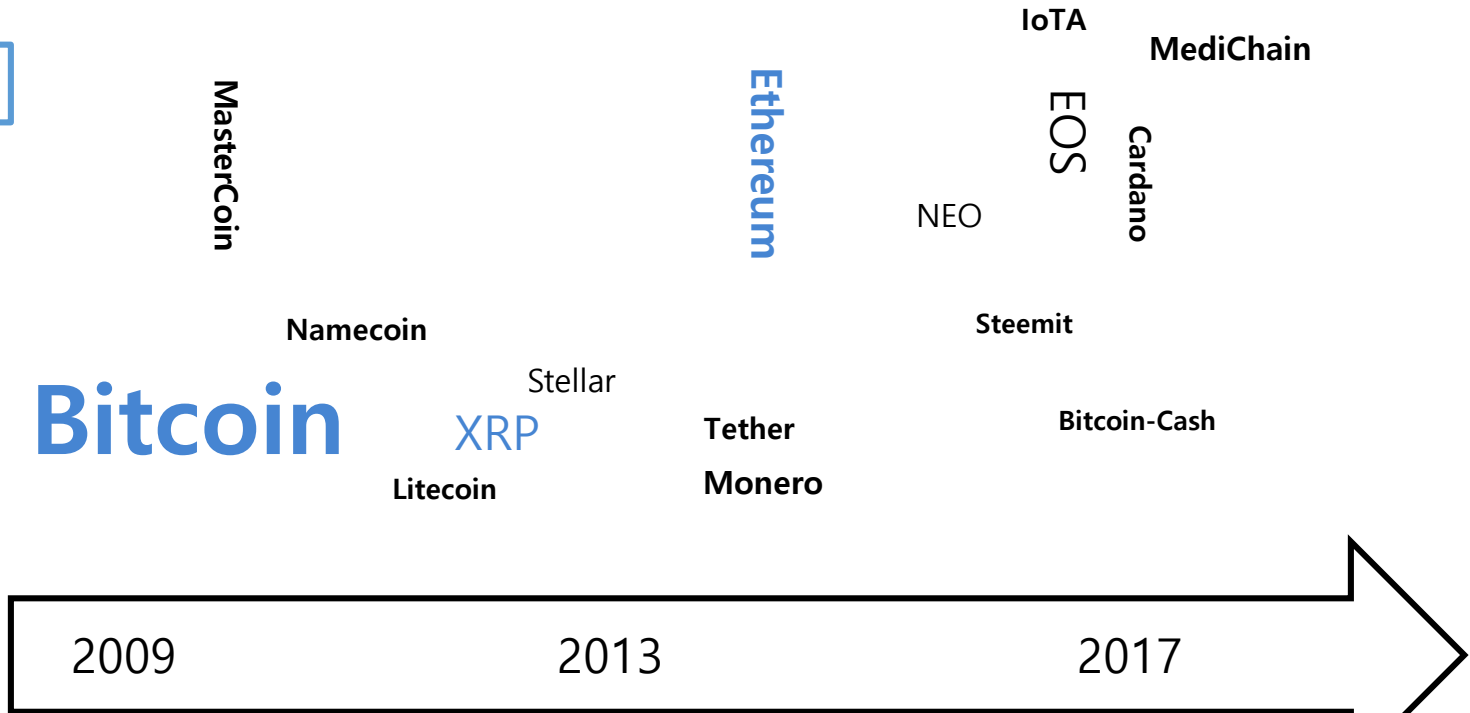
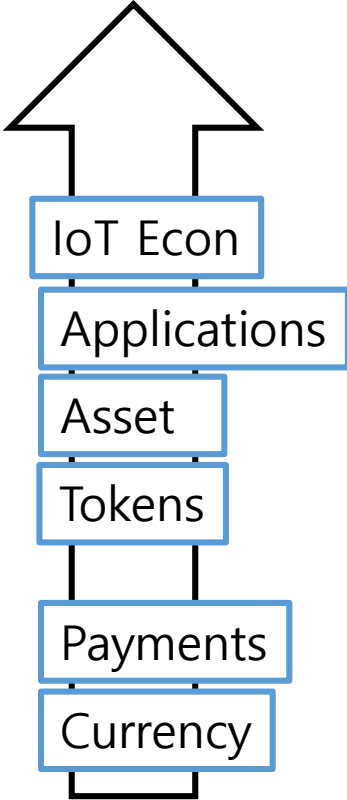
assigned to me should now be recorded as assigned to you. Financial networks are information networks, just as social networks are. And yet while the internet has revolutionized social networks, financial networks have not caught up. They remain hard to use and expensive, especially for international transactions—whereas, once you own the hardware and obtain an internet connection, social communications are essentially free. In Facebook's vision, the financial network will be modeled on the social network, and eventually the two networks will be merged into a single network, through which we will seamlessly convey to one another money as well as cat photos and political diatribes.

In the name of eliminating inefficiency and injustice in the financial system around the globe, Facebook's new cryptocurrency threatens to replay what's become a familiar story—of tech companies blithely reshaping the world around them, and significantly increasing their power over people's lives, while being accountable to no one.

What is Blockchain in 2018?



4th Industrial Rev.
Cyber-Physical System
IoT, BigData, Cloud, AI
Hyper-connected society



화폐와 블록체인 응용

- 디지털 기업/협동조합/Nation 경제 확대
- 기업 연합회 구성 교환 경비 절감
 - 페트로 코인
- 지역화폐/기업화폐 등 지불결제

- 블록체인 월드 컴퓨팅 응용
- 데이터/재산권/부동산/공유 이코노미

블록체인/암호화폐 경제

- 4차 산업혁명의 핵심 철학과 궤를 같이한다.
 - 개방, 공유, 협력, 신뢰, 혁신, 집단지성
- Token economy, 상호협력하여 하나의 공통된 목표 달성.
 - 암호화폐 무분쟁 보상 및 정산
 - 공동 목표 달성을 위해 상호 협력
 - 소비자-공급자 간 협력
 - 자본가-노동자 간 협력
 - 정부-국민 간 협력
- 연결된 Things들의 상호협력, 임무수행.
 - Things 간 유기적 연결
 - 자동차와 자동차간의 협력
 - 센서와 센서 간의 협력

WEF 암호화폐 전망

- 1980 PC Windows
- 1995 Internet, Explorer
- 2005 Mobile, Android iOS
- 2015 WEF 5월 보고서 예측, "27' 전세계 GDP 10% 암호화폐로 보관", "23' 국가가 세금을 암호화폐로 징수 시작"
- 2016 다보스포럼, 빅데이터와 블록체인이 승자
- Korea GDP 1,400B.USD 2015에서 1,800B 2027 전망
- World GDP 80,000B 2015에서 100,000B 2027 전망
- Cryptocurrencies Market Cap 10B, 2015, 10,000B 2027 전망
(0.01% → 10%, 천배 성장)
- Cryptocurrencies Market Cap 2018 = 216B (0.25% of WGDP)

과기부 예타 사업 및 과제를 통해 본 사업기 회 모색

블록체인 과제 명단

- 실시간 대용량 데이터 유통을 위한 온-오프 하이브리드 블록체인 기술 개발
- 블록체인 시스템의 상호 연동을 위한 HCB-Net 개발
- 마이크로그리드 보안 및 운영 효율성을 위한 블록체인 기반 임베디드 기기 및 플랫폼 개발
- 블록체인의 트랜잭션 모니터링 및 분석 기술 개발
- 위치 기반 블록체인 시스템 개발

블록체인 과제 명단

- 블록체인을 활용한 분산형 자기주권 신원정보 관리 기술 개발
- 학술논문 출판의 투명성 및 신뢰성 확보를 위한 개방형 동료 심사용 블록체인 응용 플랫폼 개발
- 스마트 컨트랙트 정형명세 블록체인 핵심 기술
- 블록체인 외부 정보 접근을 위한 스마트 컨트랙트 오라클 기술 개발
- 블록체인 기반 물류정보의 실시간 트래킹을 통한 스마트 항만 응용 플랫폼 개발

블록체인 과제 명단

- 부정거래/수급 특화 블록체인 응용 플랫폼
- 확장가능한 탈중앙화 보안성 ECCPoW 블록체인
- 전자문서 발급 유통 블록체인 플랫폼 개발
- 블록체인 기반의 웹툰 콘텐츠 정산 모니터링 기술 개발
- 블록체인이 적용된 Secure Access Lock 모듈 기반의 사물 공유 거래 서비스 플랫폼 개발

암호화폐/블록체인 질문목록

1. 블록체인이란 게 도대체 뭔가요?
2. 세계 최초의 암호화폐는 무엇인가요?
3. 암호화폐와 블록체인의 관계는 어떻게 되나요?
4. 암호화폐와 우리가 평상시 쓰는 통화와의 차이점은 무엇인가요?
5. 암호화폐는 어떤 배경에서 탄생하게 되었나요?
6. 탄생한지 9년 된 암호화폐와 블록체인은 현재 어떤 상태입니까? 전세계적인 암호화폐 개발 동향을 알려 주십시오.
7. Ethereum이라는 암호화폐의 특징은 어떤 것인가요?
8. Smart Contract라는 것은 어떤 것 인가요?
9. 블록체인이 쓰일 수 있는 분야가 매우 많다고 하는데 예를 좀 들어 주시겠습니까?
10. Smart Contract의 응용분야는 어떤 것들이 있나요?

암호화폐/블록체인 질문목록

11. 전세계 젊은이들이 블록체인의 가능성에 집중하고 있다는데, 그이유는 무엇 인가요?
12. 블록체인은 과연 미래 기술인가요? 미래 기술이라고 한다면 어떤 이유를 들 수 있을까요?
13. 4차 산업혁명과 블록체인은 어떤 관계가 있나요?
14. 대한민국의 블록체인 산업의 현재 상태는 어떤 것입니까?
15. Initial Coin Offering이 대한민국에서 금지된 상태인데, ICO가 무엇이고, 금지된 배경은 무엇입니까?
16. 대한민국 정부가 블록체인 및 암호화폐를 규제하고 있는데, 정부의 입장은 무엇이라고 생각합니까?
17. 인공지능과 블록체인이 미래 핵심기술이라는데, 그 이유는 무엇이라고 생각하시는가요?
18. 대한민국이 블록체인을 육성 발전시켜야 할 방향은 어떤 것이라고 생각합니까?
19. 블록체인으로 젊은이들이 창업을 하려고 하면 어떤 것들을 조심해야 할 까요?

Concluding Remarks

- Many possibilities of Blockchain
- Verified by the market are Bitcoin and Ethereum.
- To explore new territory, experiments are needed with budgets and man power invested.
- Regulations should be kept at the minimal level to promote new ideas and new industries.
- Huge economical and societal advance is expected with the advent of the blockchain-internet.
- **Blockchain economy** is to foster freed individuals and real economy.