



NAEPC
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Blockchain Technology & Digital Currency

Industry Group



We represent clients, ranging from startups to leading financial institutions and Fortune 500 companies who are pioneering new blockchain solutions.

- Perkins Coie has been representing blockchain companies **since 2011**, beginning with the first wave of digital currency companies and trade associations.
- We were the **first law firm** to launch an industry practice group focused specifically on **blockchain**. The group was established in **May 2013** as a natural outgrowth of our long history representing fintech, Internet, mobile and technology companies.
- Today, Perkins Coie has over **40 lawyers with experience advising companies** on all aspects of **blockchain** and **digital currency law**.
- The Perkins multidisciplinary blockchain practice is on the front lines, helping major players in the industry address the complex legal and regulatory issues faced by blockchain and other distributed ledger technologies.

AGENDA

The Landscape

- Definitions and Terminology
- Blockchain 101
- Digital Currency 101
- Smart Contracts 101

Token Sales

Regulatory Landscape

- U.S.
- International

Key Takeaways

Terminology & Definitions

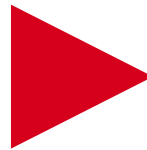
- **DLT/Blockchain vs. Cryptocurrency vs. Digital Token**
- **New Ledger Technology** – *track ownership of ANY asset*
- **New Distributed Operating System Technology** – *unstoppable applications*
- **Distributed Ledger Technology (“DLT”):**
Computer software that is distributed, runs on peer-to-peer networks, and offers a transparent, verifiable, permanent transaction management system maintained through a consensus mechanism rather than by a trusted third-party intermediary, and that guarantees execution



Blockchain 101

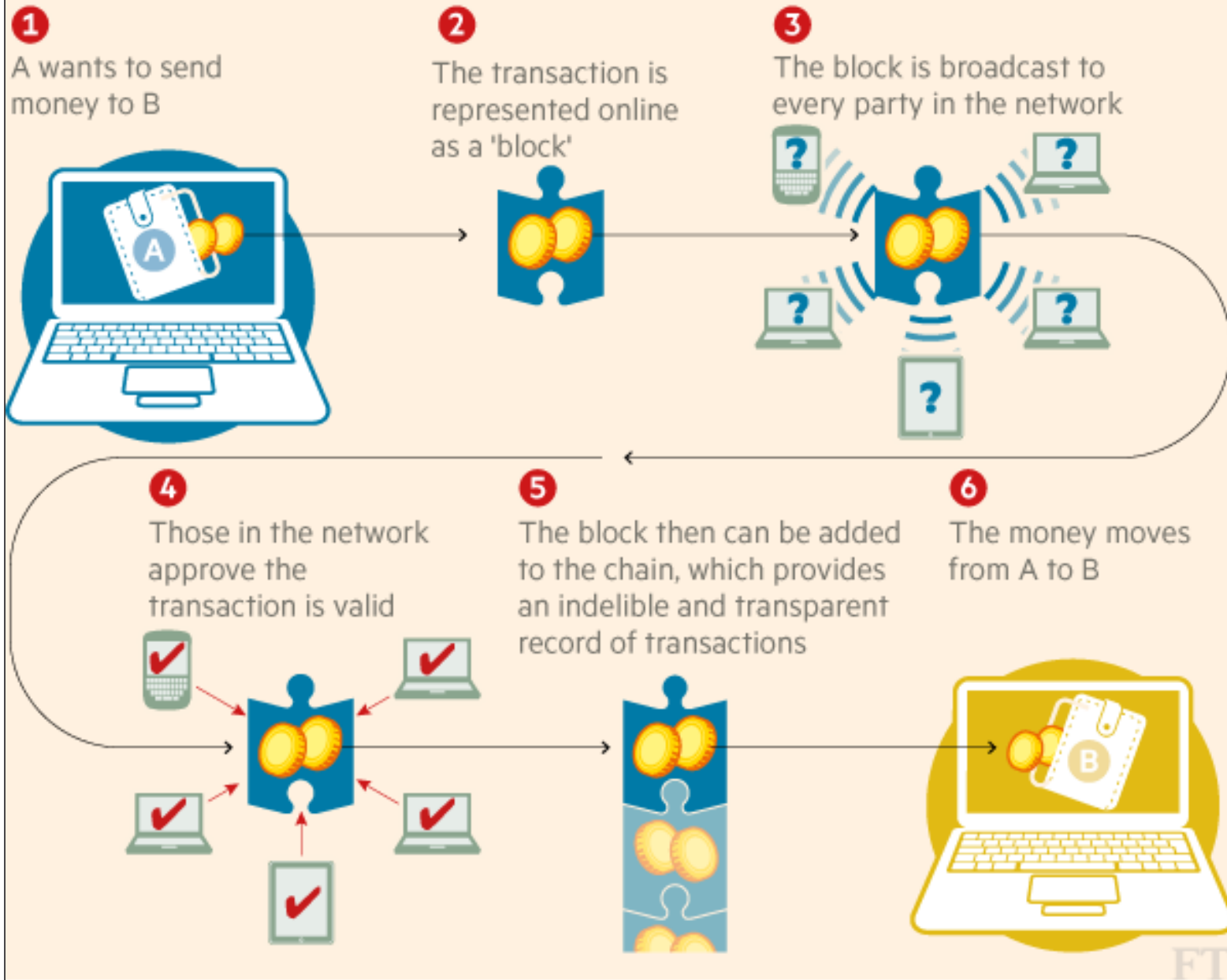
- Blockchain is a *PROTOCOL* that establishes the manner in which a ledger operates
- Bitcoin is one of many possible *APPLICATIONS* that runs on a blockchain protocol

Video: What Is Blockchain?



<https://www.youtube.com/watch?v=6AbqrkOShkQ>

How a blockchain works



Distributed Ledgers

A *DISTRIBUTED LEDGER* has no central authority and every node is responsible for maintaining the ledger

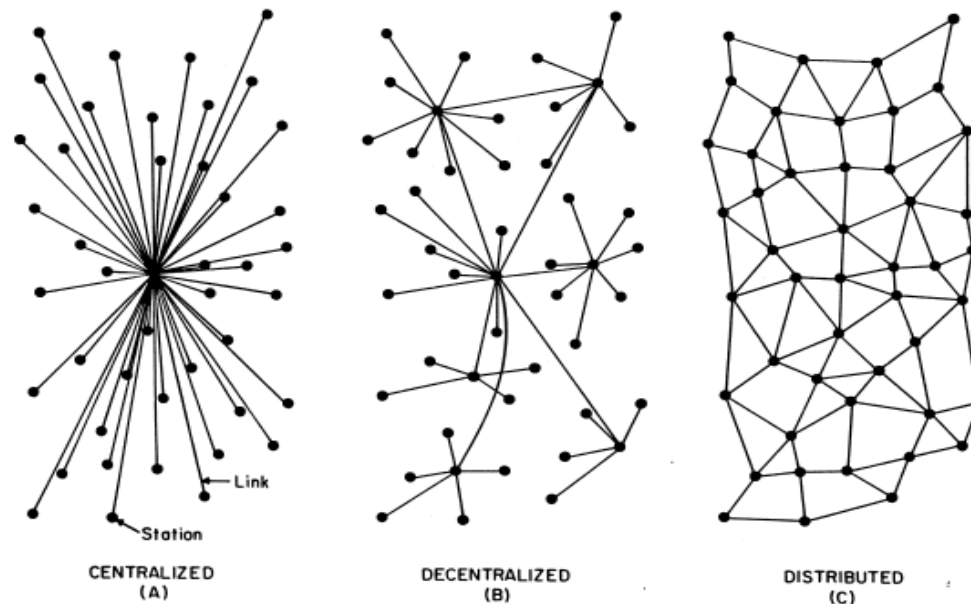


Image Credit: Paul Baran [On Distributed Communications](#) RAND Corporation (1964)

Public and Enterprise Blockchains

PUBLIC BLOCKCHAINS



public (inter-)
The internet



ENTERPRISE BLOCKCHAINS



private (intra-)
Intranets & IT



Blockchain Use Cases

Blockchain 1.0

Already in existence

- Cryptocurrency
- Payments
- Remittance
- Private Stock Trading
- Smart Contracts

Blockchain 2.0

2016 - 2020

- Identity Management
- T+0 Clearance and Settlement
- Complex Smart Contracts
- Asset Ownership
- IoT Management
- Complex Exchange Management
- EHR Management

Blockchain 3.0

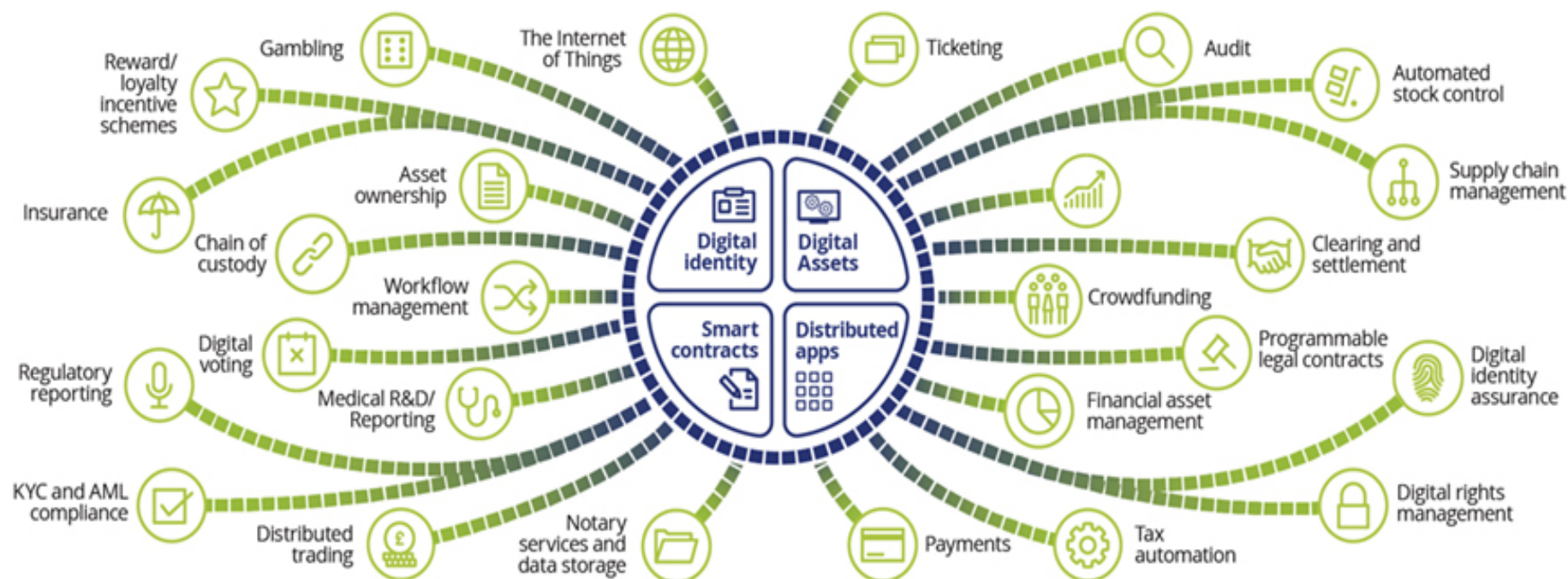
2020 - Beyond

- Complex, Advanced Financial Instruments
- Decentralized Management and Governance (DAOs)
- Liquidation of Physical Assets

Blockchain is a New Platform Technology Like the Internet

What can you do with a blockchain?

KYC – Know Your Customer
AML – Anti-Money Laundering



Deloitte.

www.deloitte.co.uk/blockchain

<https://www2.deloitte.com/uk/en/pages/innovation/solutions/deloitte-blockchain-practice.html>

Use Cases for Blockchain Cut Across All Industries



Technology & Communications

- Distributed Networking Platform Technology



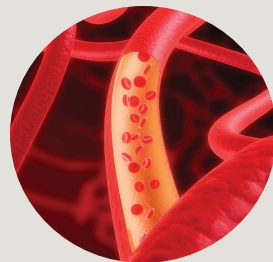
Consumer Products & Services

- Digital Rights Management
- Supply Chain Management



Financial Services

- Issuance and Settlement of Stock/ Commodities
- Public and Private Stock Ledgers



Life Sciences & Healthcare

- Recordkeeping and Auditing
- Payment Solutions
- Identity Management



Energy & Natural Resources

- Tokenized Energy Credits
- Smart Grid
- Equipment Automation and Smart Contracts



Aerospace & Transportation

- Supply Chain Management
- Inventory Management

DISRUPTIVE TECHNOLOGY THAT CUTS ACROSS INDUSTRIES

Blockchain in the United States

The U.S. State Department

- Looking to embrace blockchain to “advance diplomacy”

Centers for Disease Control and Prevention (CDC)

- Considering using it against future epidemics

Examples of states exploration:

Hawaii

- HB1481 HD1- establishes a working group to study the uses of and determine best practices regarding blockchain technology.

Illinois

- Illinois Blockchain Initiative
- Identity management - birth certificates

Blockchain in Dubai

DLT-based systems in place by 2020:

- Energy and Water
- Transport and Logistics
- Economic Development
- Tourism
- Safety and Justice
- Municipality and Land
- Health
- Social Services
- Smart Districts

Blockchain in Japan

Japan's 3 Megabanks Unite on a Blockchain for P2P Money Transfer 'Field Trial' with Japanese IT giant Fujitsu

- Mizuho
- Sumitomo Mitsui
- Mitsubishi UFJ Financial
(MUFG- Japan's largest bank)



Japanese Bankers Association (JBA) is developing a common blockchain platform for money transfer trials as possible upgrade for the current nationwide payments clearing platform Zengin.

Types of Digital Currencies



Types of Digital Currencies & Protocols



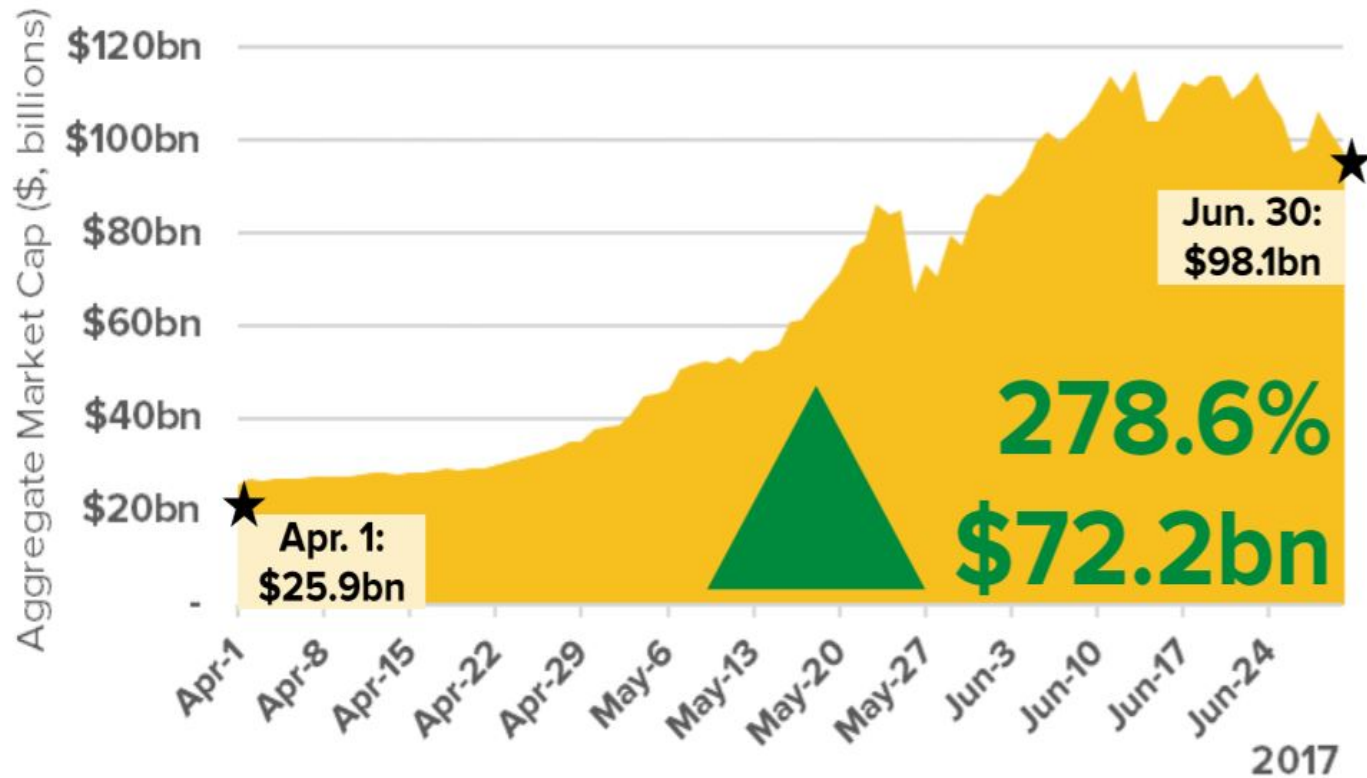
Types of Digital Currencies & Protocols



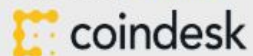
Types of Digital Currencies & Protocols



Total Cryptocurrency Market Cap



Data Source: [Coin.dance](https://coin.dance)



For some context, the market cap of:

Moneygram ~ \$1 billion

Ether ~ \$30 billion

Bitcoin ~ \$40 billion

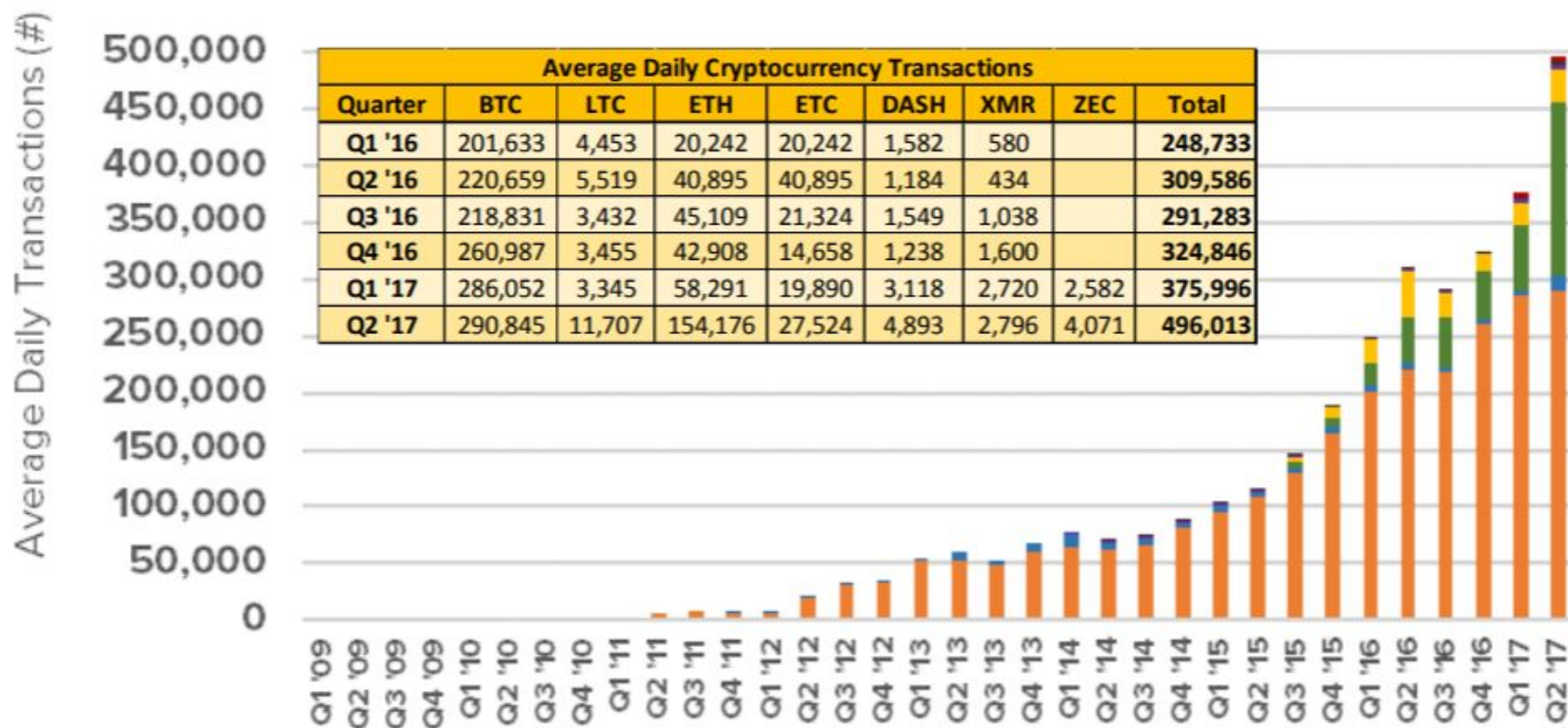
All Cryptocurrencies ~ \$100 billion

Visa ~ \$200 billion

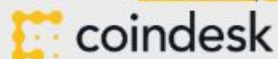
Gold ~ \$7Trillion

Daily Cryptocurrency Transactions

■ BTC
 ■ LTC
 ■ ETH
 ■ ETC
 ■ DASH
 ■ XMR
 ■ ZEC



Data Source: [BitInfocharts](#), [Zchain](#)



How do you use Bitcoin?

- To Spend
- To Save & Invest
- To Trade
- To Donate



How do you get Bitcoin?



- Purchase on an exchange.
- Accept it for products or services.
 - “Mine” it.

How do you store Bitcoin?



“Smart Contracts”

Chronology

Szabo (1994)

Computerized transaction protocol that executes terms of a contract

Blockchain (2009)

Limited form of smart contract

Ethereum (2013)

Code for smart contract language

ERC-20 token standard

Smart Contract Definition

- A smart contract is: (1) a computer protocol—an algorithm— (2) that can self-execute, self-enforce, self-verify and self-constrain the performance of its instructions.
- It is: (A) an event-driven program, (B) with state, (C) which runs on a replicated, shared ledger and (D) which can take custody over assets on that ledger.

Token Sales (aka Initial Coin Offerings or ICOs)

Defining feature of the 2017 cryptocurrency market

Token sale supply explodes:

- Global issuers assemble to sell and distribute tokens, with massive deals open and on horizon

ICO deal sizes continue breaking records:

- Numerous ICOs have exceeded the largest blockchain VC deal, several raising over \$200m

Few venture capital backed deals:

- Leading raises were for infrastructure based projects, R3, Blockchain, Canaan

ICOs overtake VC as dominant funding source:

- ICO demand matches supply, over 3x the quantity and total of blockchain venture deals

Major returns have followed some ICOs:

- Returns on certain token sales have far exceeded holding bitcoin or ether on short term

Regulation hangs on the horizon:

- Major governmental agencies are still yet to clearly speak out on tokens and crowdsales

A glimpse into Q3:

Filecoin **raises \$200m+** from accredited investors and in a pre-sale and using the Coinlist platform

Data Source: [CoinDesk](#)



Token sales are a timely topic

- Substantial funds are being raised very quickly using blockchain technology without public securities registration
 - In 2017: over \$2 billion in proceeds
 - Up to then, only \$300m in total
 - Blurred line between *tokenized goods and services* and *tokenized financial returns*
- Regulators, law enforcement and lawmakers are paying attention

What is a token sale (or ICO)?

- Crowdsale?
- Method of selling participation in an economy?
- Access to the features of a particular project starting at a later date (much like Kickstarter)?
- A right of ownership or royalties to a project?
- Something we have never seen before?

Many types of tokens

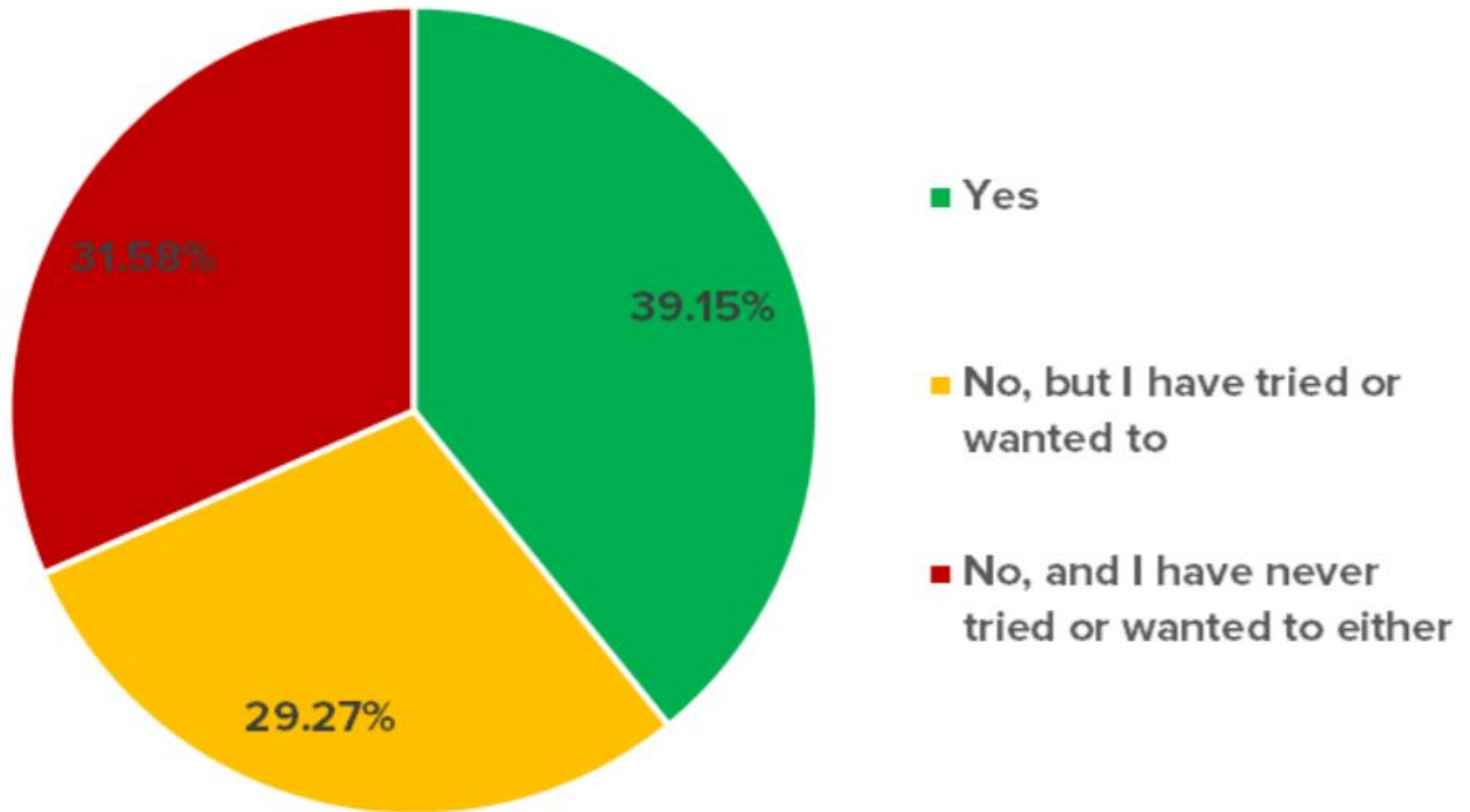
- “utility token” vs. “security token”
- “intrinsic” or “native” or “built-in” tokens of blockchains
- “asset-backed” tokens issued by a party onto a blockchain for later redemption



What is a token?

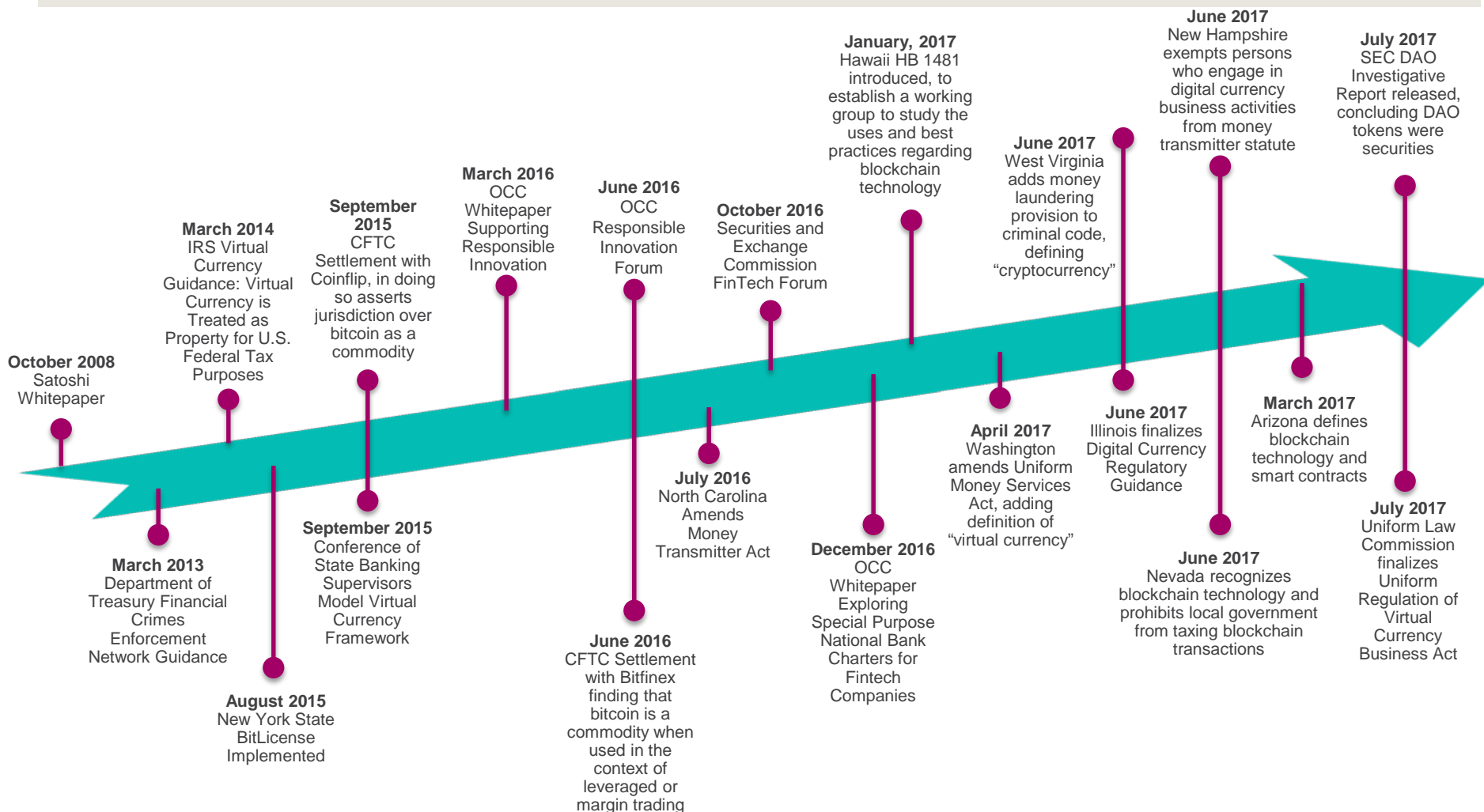
- Cryptocurrency tokens exist on a ledger (blockchain).
- Like Bitcoin, you own these 'tokens' because you have a key that lets you create a new entry on the ledger, re-assigning the ownership to someone else.
- You don't store tokens on your computer, you store the keys that let you reassign the quantity.

Have you ever participated in an ICO?



Source: CoinDesk Q2 2017 Blockchain Sentiment Survey

Regulatory Developments



July 25, 2017 SEC DAO Report - Summary

- DAO Tokens were investment contracts
- DAO was issuer of securities
- DAO should have registered with SEC or had exemption
- Platforms that traded DAO Tokens should have registered with SEC or acted as an ATS (“Alternative Trading System”)
- Raised questions about “Investment Company” and “Investment Advisers” status

<https://www.virtualcurrencyreport.com/2017/07/blockchain-and-digital-token-update-sec-releases-investigative-report-and-investor-bulletin/>

July 25, 2017 SEC DAO Report - Implications

- Distributors and sellers of DAO Tokens could be treated as “underwriters”
- Participants in effecting secondary market trades could be treated as broker/dealers
- The DAO, its associates, and participants are subject to state securities laws

September 2017 – China Weighs In

- China halts token sales, bans virtual currencies and halts operations at exchanges
- All online platforms, businesses, and applications may be investigated and closed by the government
- All exchanges subsequently ordered closed by September 15, 2017

<https://www.virtualcurrencyreport.com/2017/09/beijing-based-cryptocurrency-trading-exchanges-told-to-announce-trading-halt/>
<https://www.virtualcurrencyreport.com/2017/09/china-halts-icos-and-token-sales-and-china-based-trading-platforms-suspend-trading-amid-reports-of-additional-government-restrictions/>

Ultimate digital disruptor in the global [taxation] landscape

Blockchain's core attributes mean that it has significant potential for use in [tax]:

- Data and transparency
- Control
- Security
- Real-time information

State Tax Developments

Nevada

On June 5, the Nevada State Legislature became the first US state to approve a bill which will block local government entities from taxing Blockchain transactions.

Arizona

On May 29, Arizona Governor Doug Ducey signed a bill which recognized the legality of Blockchain's signatures and smart contracts, in particular with respect to transactions relating to the sale of goods, leases, and documents of title governed respectively under UCC Articles 2, 2A and 7.

International Tax Developments

Luxembourg

Investing in a company called LuxTrust - created a blockchain identity platform that will be used in everything from tax filing to regulatory enforcement.¹

China

Planning to incorporate blockchain into its tax collection process within the next five years.²

Japan

Looking to integrate blockchain into its online systems for accepting government contract bids.³

1. <https://www.americanbanker.com/news/blockchain-startup-forms-partnership-to-develop-identity-platform>

2. <https://www.technologyreview.com/the-download/608570/china-will-experiment-with-using-blockchain-to-collect-taxes/>

3. <https://asia.nikkei.com/Politics-Economy/Policy-Politics/Japan-looks-to-blockchains-for-more-secure-e-government-systems>

Key Takeaways

- The most significant development I have seen in my legal career.
- Tremendous innovation.
- Complex.
- Global – unstoppable.
- High stakes.
- Will impact all industries.
- It is open source, so learn and get involved.