Overview

- Brief Perspective of Technology Today: Exponential Growth
- Level Setting Blockchain
- What is Happening Now for Financial & Legal in this Space?
- Where will Blockchain take off in the Industry?
- ICOs the first “Killer App”
LOCAL + LINEAR

Human Development over 250,000 Years

What does **EXPONENTIAL** growth feel like?

If you take 30 **EXPONENTIAL** steps...
You would travel around the earth 26 times.

1 2 4 8 16 32
64 128 256
512 1024...

...1,073,741,824 yards
i.e. 1 Billion

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Exponential Growth Impact

Trinity of Forces – Cloud Storage

Trinity of Forces – Processing Power
Trinity of Forces – Artificial Intelligence

History of Blockchain
- Peer to peer electronic cash transfer
- No central bank authority
- Relies on cryptography proof rather than trust
- Nodes agree/verify the history of the chain
- Winners of computational race earn bitcoin
- Solves the double spend problem

What is Happening Now for the Industry?

Legal & Financial Space
- **2016**: General Awareness Through Legal
  - 1.5 Billion invested in last 18 months
  - All of the largest banks (50) in the world are involved – R3
  - Goldman Sachs: 11-12 Billion US saved yearly by clearing and settlement of cash securities
  - 2.4 Billion saved by mining revenue access fees to the ledger
- **2017**: The Year of Pilots
  - Law Firms setting up Blockchain Practice Areas
  - Starting to take Bitcoin
  - Collaboration with Universities e.g. University College London
  - Year of the ICO
- **2018**: Real use of the technology
  - Banking & Insurance companies
  - Financial Industry – transactions (options, swaps, trading confirmations)
Consortiums & Companies

Microsoft Azure

Where will Blockchain take off in the Legal Industry?

Blockchain of Things (BoT)

- **Smart Contracts** – self executing legal documents
- **Real Estate** – real estate transactions e.g. Honduras (Factom)
- **Boardroom** – recording which C-suite voted for various proposals at a company
- **Identity** – Passport (private & public blockchain) proof of validation – other info safe
- **Chain of Title** – track the ownership of a property back to creation
- **Authentication** – verification of things like diamonds or signed sports memorabilia
- **Notary services** – will be gone in the next few years
- **Rental Contracts** – Airbnb vulnerable - creating a rental network (Slockit)
- **Music Licensing** – Musicians directly selling music to their listeners (BitTunes)
- **Money Transfer** – absolutely be impacted with money exchange (Western Union)

Smart Contracts & Coding

What the Future May Look like with Blockchain?

Real Estate - Factom

- Peter Kirby, Factom CEO and Founder

"If it is on paper, somebody can steal it from me. If all my neighbors just agree that it is mine, it is really more secure in my mind."

- William Graham Sumner (American political scientist and philosopher)
Identity Shift: the Future with Blockchain

- **DAO - Decentralized Autonomous Organization**

![Diagram of You, Object, and Digital Contract]

How To Buy and Send Money

What is an ICO?

- **ICO: Initial Coin Offering** – a way to raise money for startups

  - Company Website
  - Whitepaper – Purpose – Timeline – Transfer info
  - “Donating” funds to the project via their website
  - Transactions are stored on the Blockchain as a record – “smart contract”
  - Users are given “tokens” or “coins” in exchange for their “donation” of Bitcoin (BTC) or Ethereum (ETH)
  - Transfer those “coins” to your online wallet for you to hold
  - Lastly, once the ICO time period is over, public exchanges then begin trading those coins

Visualizations

- **Cryptomaps.org** is a “market-state visualization” tool that shows the relationship between different cryptocurrencies by the size of their market capitalizations and trade volumes.

  ![Cryptomaps.org visualizations]

  **Bitbonkers** is a unique website that shows the Bitcoin blockchain’s blocks and transactions with balls and squares that fall from the sky.

  ![Bitbonkers visualization]

- **Map of Coins** is an interesting website that displays the history behind the various altcoins in existence through a tree-like representation.

  ![Map of Coins visualization]

  **Bitlisten** is a tool that lets you listen to bitcoin transactions happening in real-time. With Bitlisten, now you can.

  ![Bitlisten visualization]
ICO Demo

Exchanges
- Poloniex
- Kraken
- Coinbase
- BTC-E

Legal Implications
- Law Firms Help Launch ICOs
  - Consultation on how to do it: Cooley, PerkinsCoie and Holland & Knight
- Potential Class Action Suits
- SEC – Releases Warning – July 2017
- AML – Anti Money Laundering Issues
- How do you track where, when and to whom money is going globally
- FINCEN – also primarily watching
- Taxes
  - How is this taxed? Currently seen as property
  - How do you deal with people mining and their taxes?

SEC Guidance
- Analysis on whether an offering is a security applies equally to the uses of new technologies such as ICOs
- But ICOs are not, by default, securities offerings. Must carefully review the expectations and rights of the potential token holders
- Clear reminder that any securities offered and sold in the United States, regardless of form, must comply with the federal securities laws
- Without an exemption, any exchange on which such tokens are traded may need to register
- Person who receives compensation in connection with a token sale may be required to register as a broker-dealer
- Person who provides advice regarding the investment in or value of the tokens may be required to register as an investment adviser
- Company or fund that purchases tokens could be deemed an investment company

Our Past Platform

What Is Next?

Source: Joe Guagliardo
Other Industry Terms

- Colored coins
- Sidechains
- Anchored chains
- Specialized chains
- Other Cryptocurrencies (200+)
- Blockchain Economy
- Blockchain of Things
- Oracles
- Tokens
- Augur

Challenges

- Skeptics
- Ideological Motives – Antiestablishment Roots
- Regulatory
  - Privacy issues – sharing
  - Interoperability Fragmentation
  - Scalability
  - Need for standards
  - Technology driven solutions v Solutions Driven

Questions & Quick Guide of Resources

- **Twitter:** @joerazz
- **Main Sites:**
  - JoeTechnologist.com or JosephRaczynski.com
- **YouTube:** Joseph Raczynski
- **Topics:**
  - Blockchain
  - AI
  - Cybersecurity
  - Cloud
  - Portal
  - Big Data
  - AR/VR/IMR
  - Drone Technology