

Blockchain and Cryptocurrency: The Technology and Regulatory Environment

Michael D. Palage

InfoNetworks

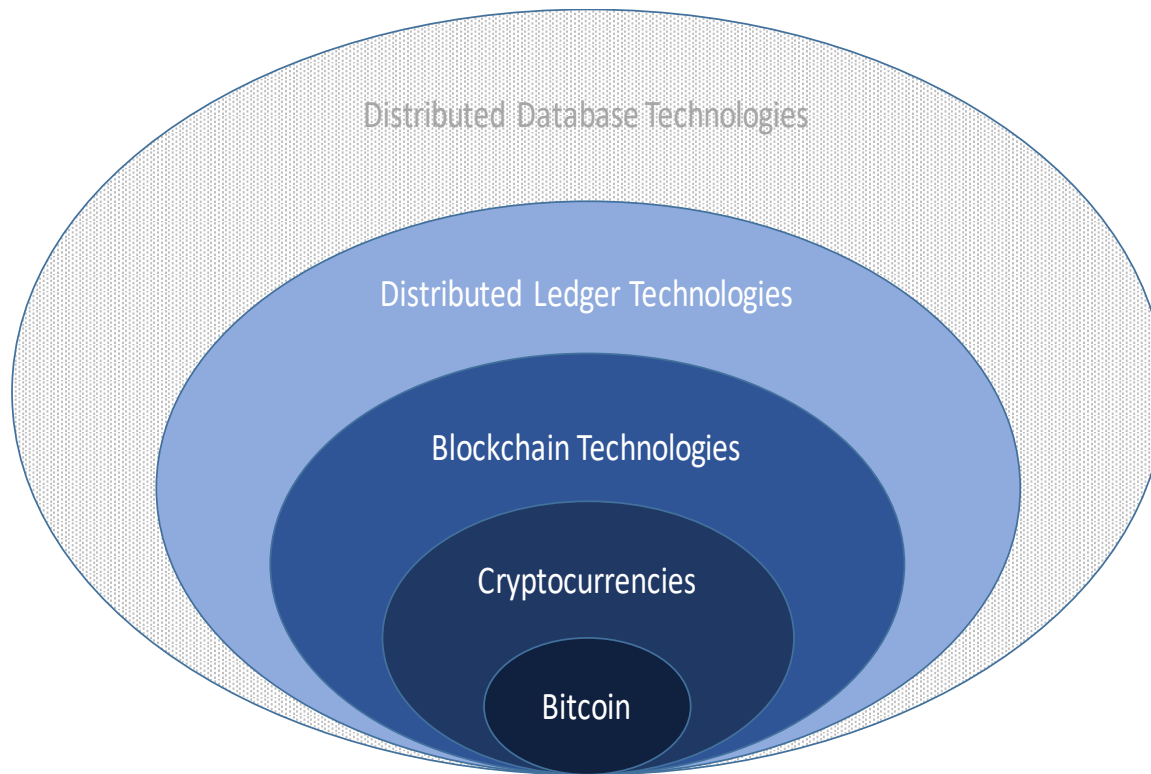
Introduction

- InfoNetworks is an international technology firm, providing information services and consulting to businesses and professionals.
- A primary area of focus is technological standards and governance frameworks involving digital identities, particularly those involving blockchain/distributed ledger technologies.
- Michael Palage holds a B.S.E.E. from Drexel University, and Juris Doctor in Law from Temple University.
- Mr. Palage has been intimately involved in the domain name industry for over twenty years and has played an active role ICANN in operational and policy matters since its formation in both an individual and leadership role, including a three-year term on the ICANN Board of Directors.
- Mr. Palage has testified before the United States Congress on multiple occasions and as an expert witness in both Federal and State Court in numerous legal proceedings.

Definitional Level Setting



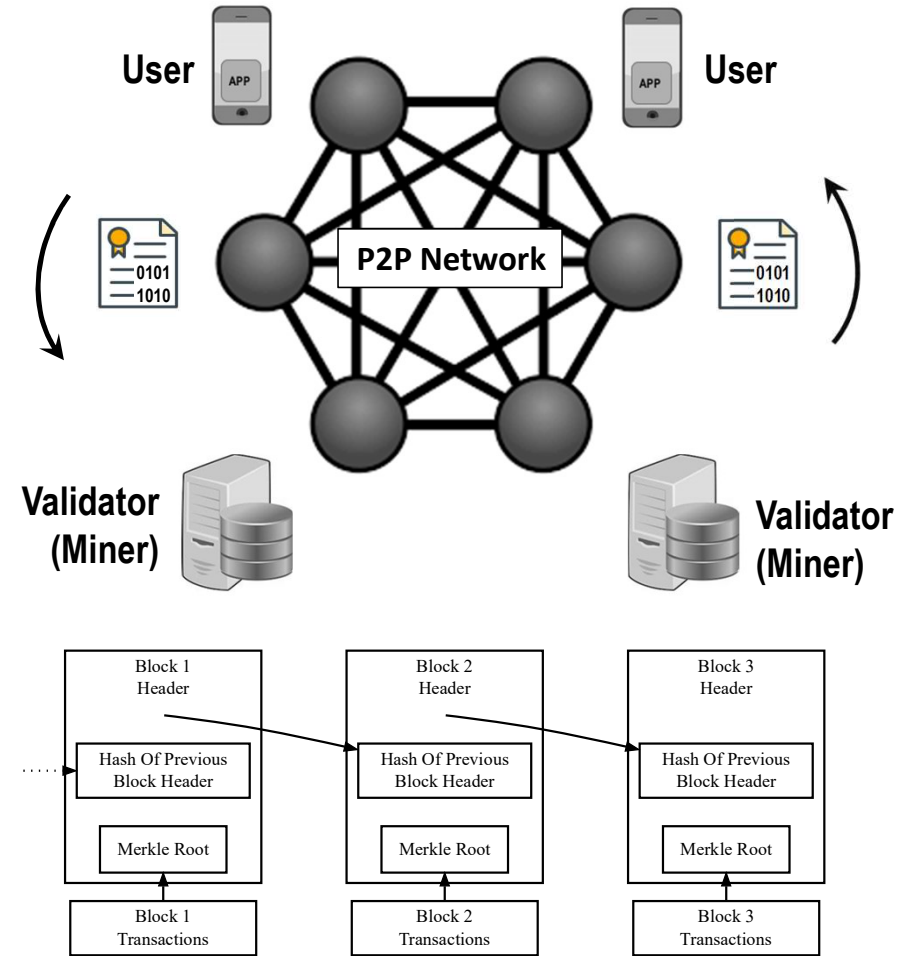
Bitcoin vs. “Blockchain” vs. “DLT”



- Bitcoin is the original cryptocurrency using a “blockchain” distributed ledger
- There are now numerous other blockchain cryptocurrencies (e.g. Ethereum, Litecoin, XRP)
- Blockchain technology is now being used as a platform for **Distributed APPLICATIONS**
- There are a number of different distributed ledger architectures (e.g., Hyperledger)
- Distributed ledgers are one type of decentralized data store...

What is (a) “blockchain”?

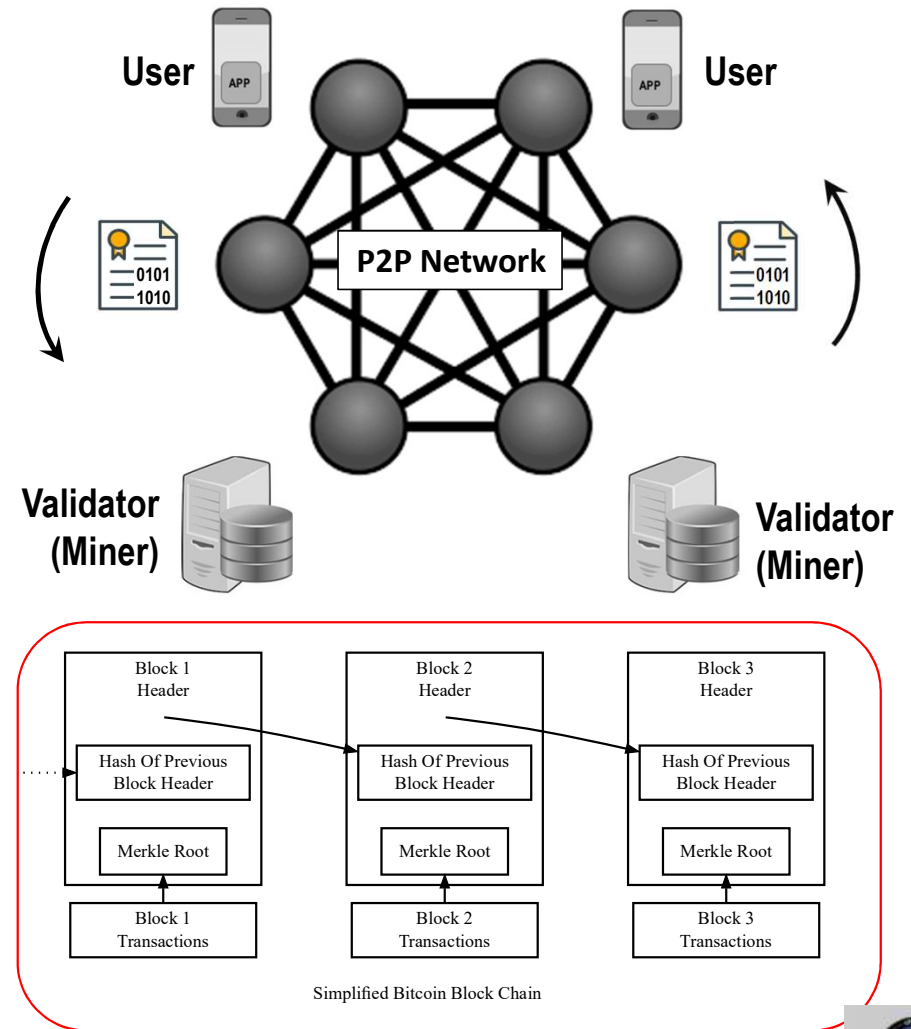
Blockchain is networking platform having a ***distributed ledger*** containing ***hashed blocks*** of data created by ***validators (miners)***, who use a ***consensus protocol*** to authenticate data from a ***cryptographically-signed*** exchange of ***tokens*** (and/or processing of a ***smart contract***) between ***digital wallets*** for anonymous parties on a ***peer-to-peer network***.



Simplified Bitcoin Block Chain

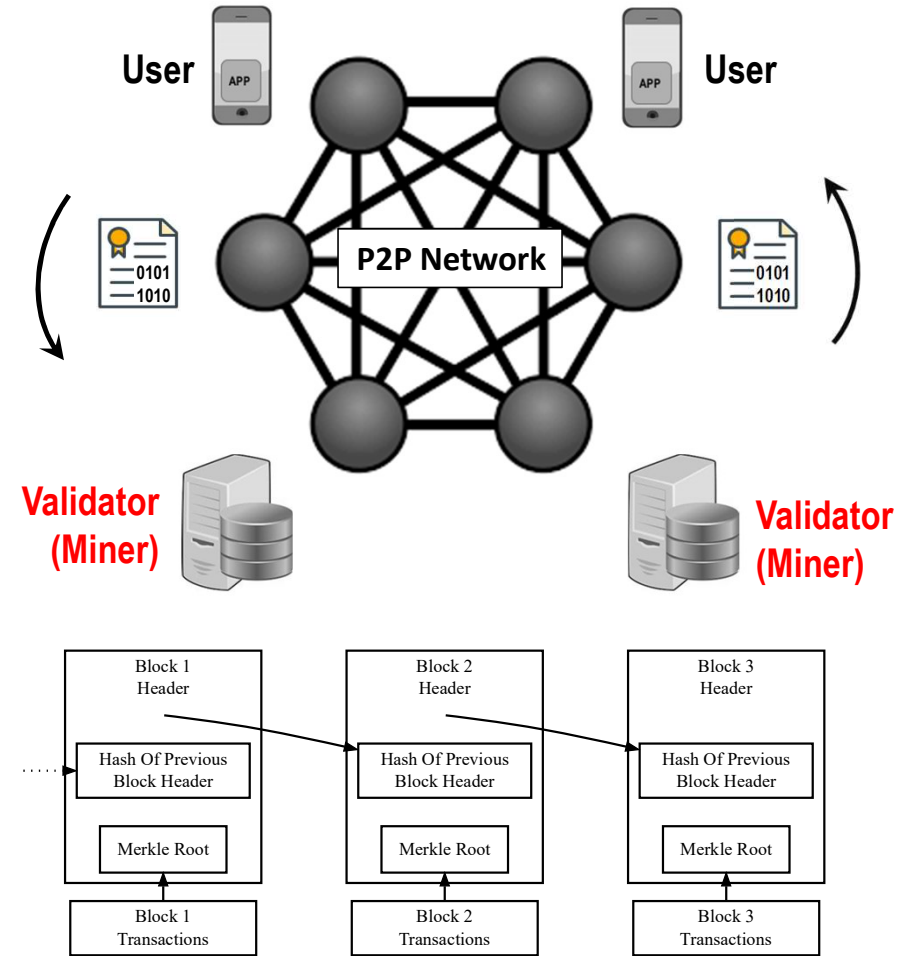
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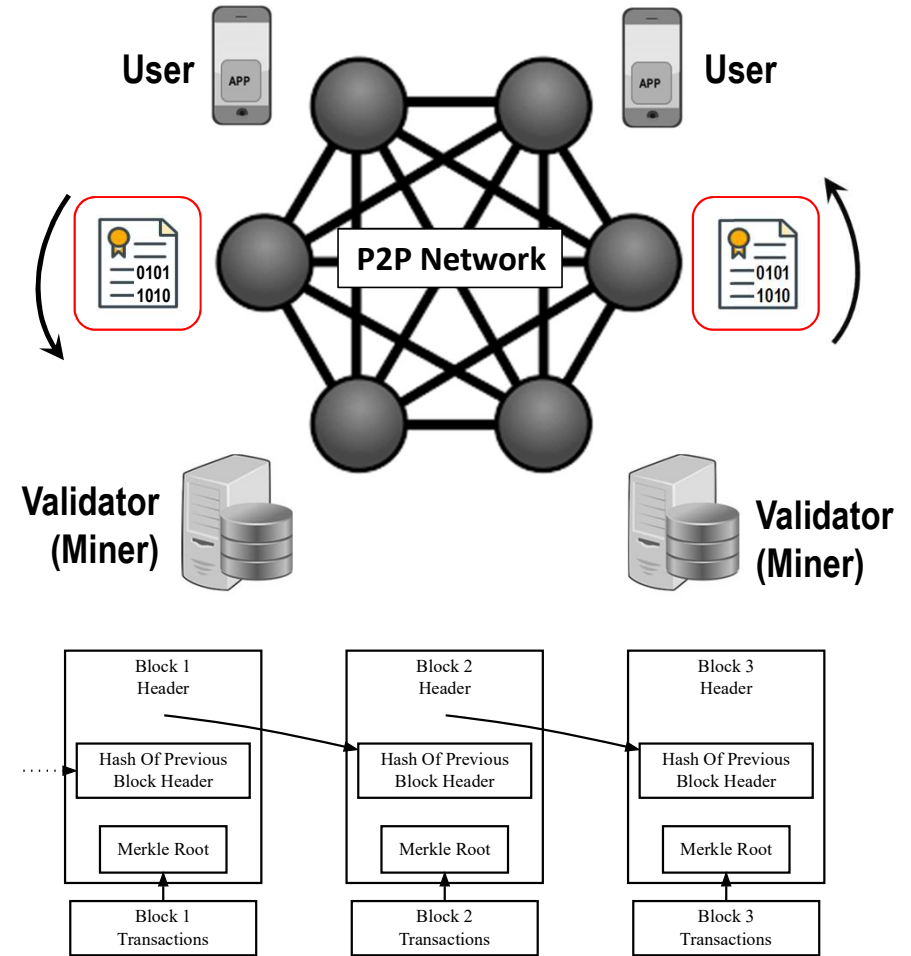
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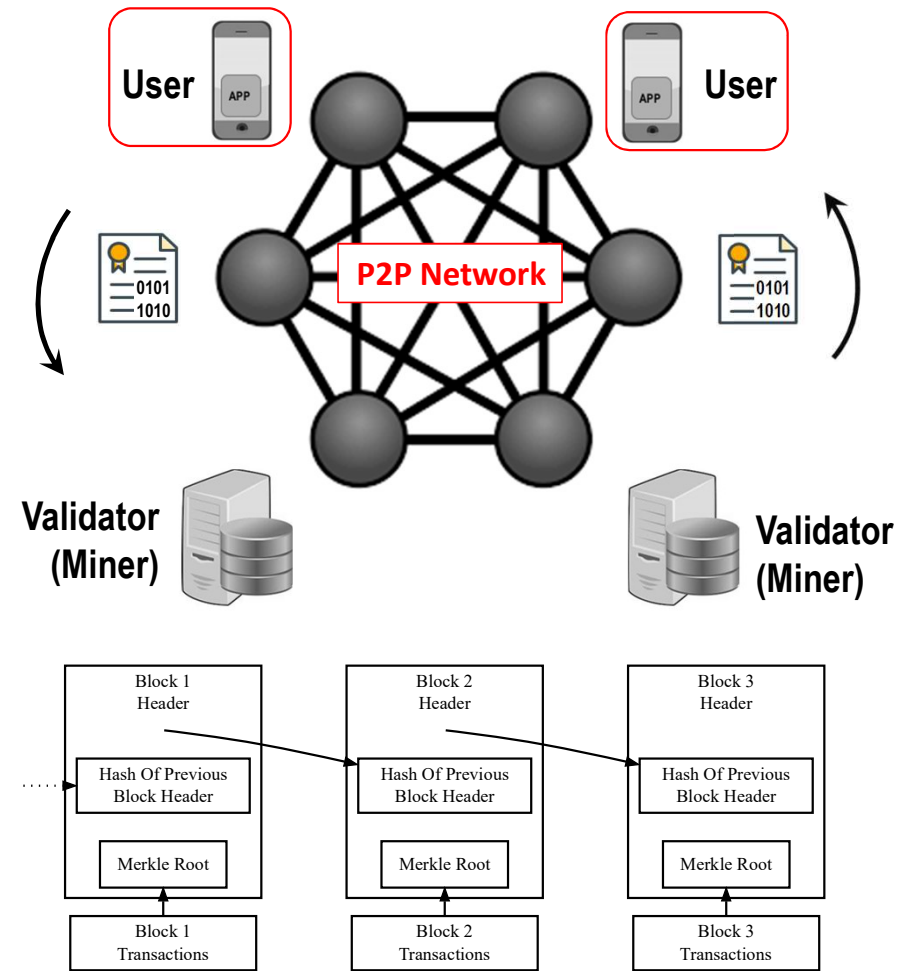
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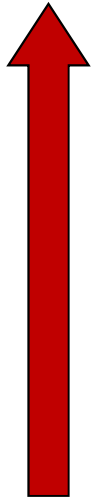
Key features of blockchains / DLT's

- Transact ***anonymously*** (or ***pseudonymously***)
- Transact with ***limited trust***
- Transact with software ***functions***
- Verify by ***consensus***
- Distribute a ***shared record***
- Create an ***immutable record***

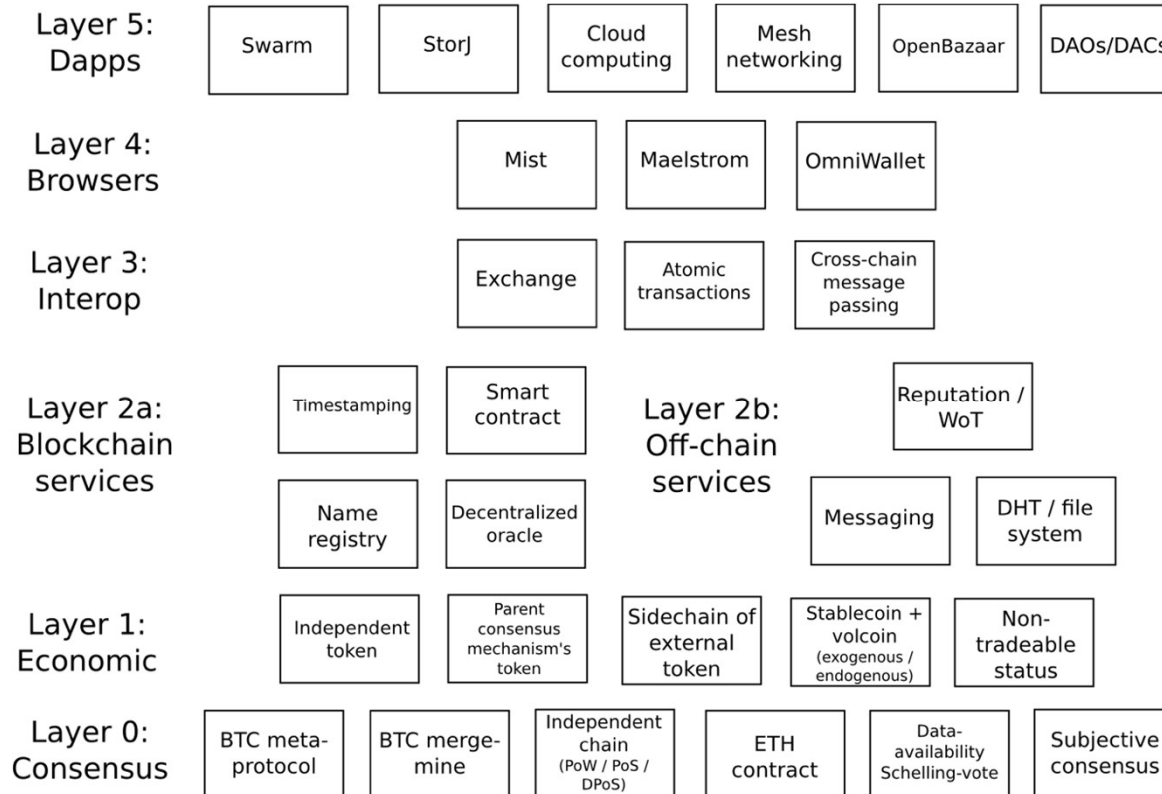


The Ethereum Project (<https://www.ethereum.org>)

Use Case Applications



Platform Technology



Other DLT platforms for enterprise

- **General**

- Hyperledger (<https://www.hyperledger.org>)
- Corda (<https://www.corda.net>)
- Multichain (<https://www.multichain.com>)

- **Cloud Providers**

- Microsoft (<https://azure.microsoft.com/en-us/blog/simplifying-blockchain-app-development-with-azure-blockchain-workbench-2/>)
- IBM (<https://www.ibm.com/blockchain/>)
- AWS (<https://aws.amazon.com/about-aws/whats-new/2018/04/introducing-aws-blockchain-templates/>)
- Google (coming soon)

- **Financial**

- Symbiont (<https://symbiont.io>)
- Quorum (<https://www.jpmorgan.com/country/US/EN/Quorum>)
- Ripple (<https://ripple.com>)

Blockchain/DLT Non-Crypto Use Cases

- There are a variety of business use cases involving blockchain/DLT that are not cryptocurrency dependent:
 - Health Care /Insurance
 - Cyber Security
 - Digital Identity
 - Internet of Things
 - Financial - Mortgages
- Blockchain: A multi-functional 'Swiss Army knife' for cyber-security
<https://www.scmagazineuk.com/blockchain-a-multi-functional-swiss-army-knife-for-cyber-security/article/671040/>

IP Focused Use Cases - Consensus 2018

TUE MAY 15/ 8:30 AM - 9:00 AM / 30 MINS

BLOCKCHAIN-ENABLED INTELLECTUAL PROPERTY MANAGEMENT

📍 GRAND BALLROOM, 3RD FLOOR

Patents and other types of intellectual property (IP) play an increasingly important role in the economy. Unfortunately, key aspects of managing IP haven't changed in decades, resulting in waste, unnecessary risks and missed opportunities. With Deloitte and others, Koch is working to build an industry-led platform to decrease operational costs, increase ownership verifiability & transparency and enable new insights & services, all while realizing greater value from existing and newly-created IP.

General Session

Speakers



Ms. Linda Pawczuk
Deloitte
Moderator



Mr. Stephen MacKenzie
Koch Companies Public Sector, LLC
Panelist



Michael V. Kruljac
Georgia-Pacific LLC
Panelist



Mr. Tim Davies
Koch Industries
Panelist

This session should soon be available for viewing from the coindesk website via Consensus Playback
<https://www.coindesk.com/events/consensus-2018/>

IP Focused Use Cases - Consensus 2018

TUE MAY 15/ 2:20 PM - 3:00 PM / 40 MINS

BRANDS, SEALS, AND CRYPTO COLLECTIBLES

📍 TRIANON BALLROOM, 3RD FLOOR

The anti-counterfeit qualities that Bitcoin introduced sparked entrepreneurs in several industries. Blockchain applications for brand authenticity, verifiable certifications and seals for organic foods or child-labour free production processes are now several years into development. These same anti-counterfeit qualities have also found a home for new markets in the collectibles industry. This panel brings together these entrepreneurs to discuss how they are all using the same technology to both fix important global problems and to just have some fun.

Speakers



Mr. Brady Dale
CoinDesk
Moderator



Mr. SUNNY LU
VeChain
Panelist



Tyler Mulvihill
ConsenSys
Panelist



Mr. Dieter Shirley
CryptoKitties
Panelist

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Questions

Thank You