Aurora
Consulting

Patently Strategic

Cryptocurrencies, Blockchain, and NFTs – The Bare Minimum Understanding you should have as an IP Professional

WELCOME! – Format

- 10 Minutes Ice: Breaker

- 15-20 Minutes: Problem Solving

- 30-35 Minutes: New Material

Shared Problem Solving

- Fun Strategy Tidbits?

- Any problems you are encountering with the USPTO?

- Any practice issues arising?

- Any technical issues you are facing?

Overview

- **Blockchain & Cryptocurrency**
  Why so much HYPE?

- **What is the state of the technology?**

- **Protecting blockchain & cryptocurrency innovations**

Q: Why are cryptocurrencies and blockchain technology everywhere lately?

Short Answer:

- Historical "trust issues" with digital money have been overcome

Longer Answer:

- Blockchain has solved the majority of these "trust issues" by providing:
    - Very secure transactions
    - Decentralized management: no third-party meddling (e.g., government, banks, data providers, Facebook, Google, etc.)
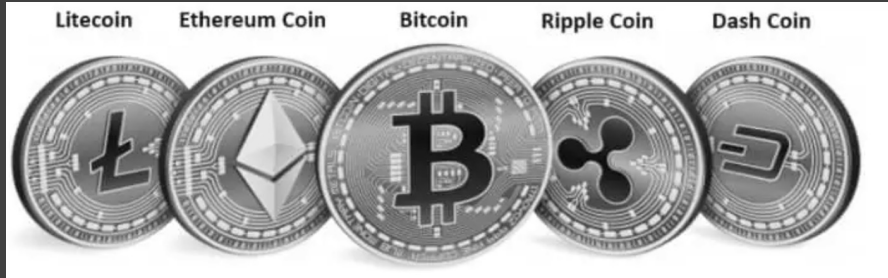   - Identity Masking

What is Blockchain?

Blockchain technology allows multiple parties to transact in a peer-to-peer manner without the need for a trusted intermediary, such as a bank or a government entity
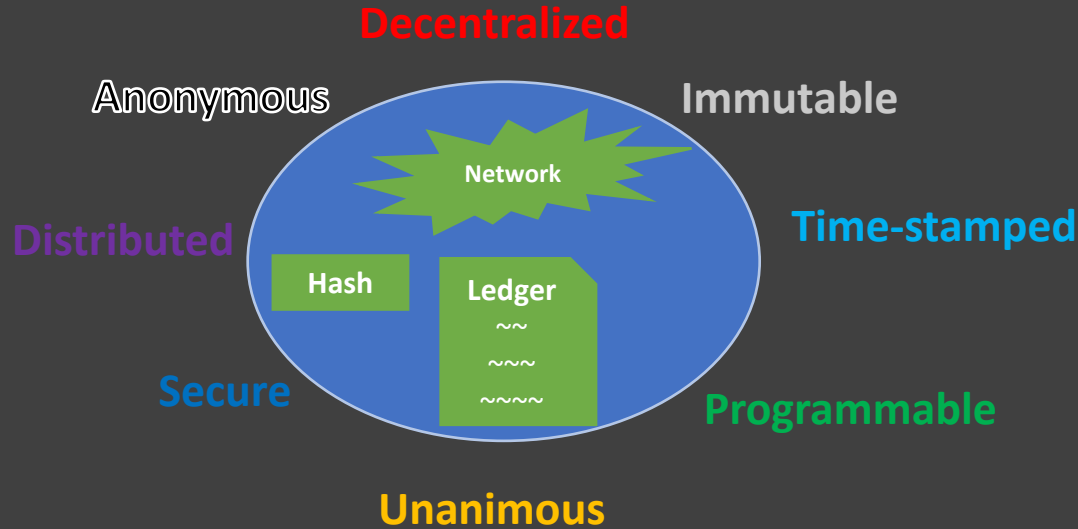
What is Cryptocurrency?

- A decentralized, encrypted digital currency that is transferrable between peers

- Data with a value and address

- Transactions completed using cryptocurrency are maintained in a distributed public ledger (i.e., a blockchain)

- Financial transactions performed without the help of a third-party service
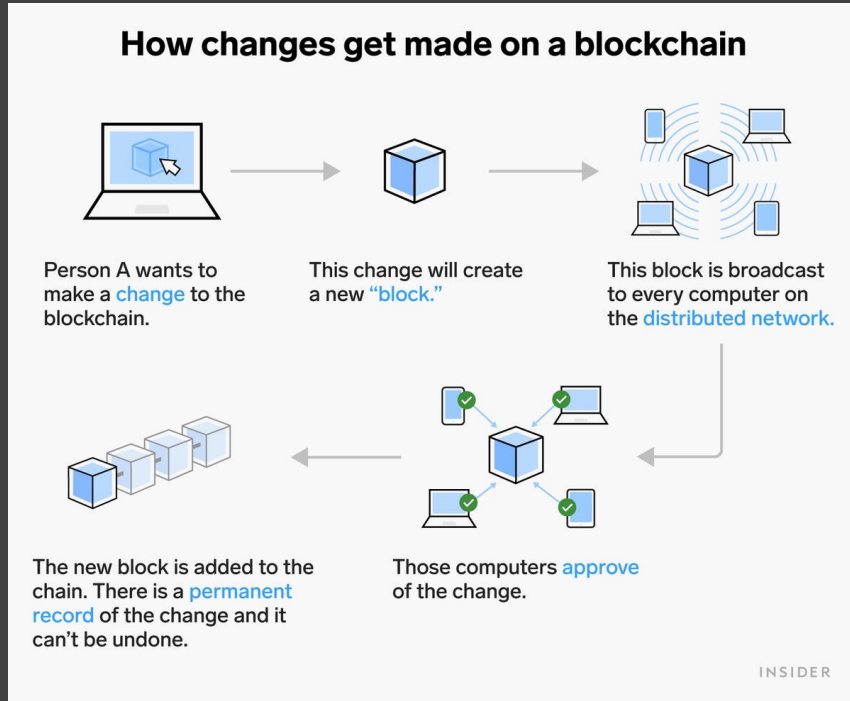
Cryptocurrency Features

PROs

- Secure financial transactions
- No permission needed to use
- Fast transactions
- Participant locations irrelevant
- Identity can be hidden
- Virtual, no physical form
- No central banking system

CONs

▶ Irreversible Transactions

▶ Public transparency of transaction details can fuel attacks

▶ User-based behavior tracing/tracking is difficult by anyone outside of the membership

How changes are made on blockchain

How changes get made on a blockchain

Person A wants to make a **change** to the blockchain.

This change will create a new **"block."**

This block is broadcast to every computer on the **distributed network.**

Those computers **approve** of the change.

The new block is added to the chain. There is a **permanent record** of the change and it can't be undone.

INSIDER

- e.g., Cryptocurrency Coin Example:
  - Starting with the initial creation of a cryptocurrency coin, each transaction is confirmed and stored in the public ledger (e.g., a blockchain)...
  - Digital wallets use encrypted, electronic signatures (cryptographic proof) of transaction origination
  - Network approves transaction
  - Transaction performed
  - Proof of work transaction fee paid

https://www.businessinsider.com/what-is-blockchain

What is an NFT?

Unique digital artwork

A digital collectible

A domain name

NFT Examples

An essay

A rare book

Event ticket/coupon

An in-game item

Unique sneaker in a limited-run fashion line

- Nonfungible token
  - Unique (i.e., one of a kind) digital token
  - Represents a real-world item or digital content
  - Uses blockchain to digitally record transactions
- No fungible trade amongst NFTs because they are unique representations of real-world assets (including digital content)
- Function similar to a deed for an item in the real-world
- Deployed as individual chains of ownership (e.g., smart contracts) to track a specific asset

https://ethereum.org/en/nft/

Evolution of the Web

- **Web 1.0** (~1990 – 2004) Open Platform
  - No one owned or controlled it
  - Products/content limited (advertisements on Internet banned)
  - Few content creators
- **Web 2.0** (~2004 –) Open Platform & Closed Platform Options
  - Rich Internet Applications (e.g., Google Maps)
  - Semantic Web
  - Social Media
- **Web 3.0** (incoming/underway) Likely Open Platform using Blockchain
  - Introduces property rights and decentralization
  - Owned by data users/data generators; less large company ownership

https://www.geeksforgeeks.org/web-1-0-web-2-0-and-web-3-0-with-their-difference/
https://podcasts.apple.com/us/podcast/the-tim-ferriss-show/id863897795?i=1000540043607
https://www.nbcnews.com/science/science-news/web3-s-silicon-valleys-latest-identity-crisis-rcna9846

What does this Web evolution mean?

- **Web 1.0**
  - Read only Internet [Netscape, AOL, Microsoft, Google, etc.]

- **Web 2.0**
  - Read/Write Internet [Google, Apple, Facebook, Spotify, etc.]

- **Web 3.0**
  - Likely open [users can easily build and orchestrate platforms/content]
  - Possibility of avoiding Big Data CEOs current power structure, data hoarding, narratives, censorship, etc.

What does Web evolution, blockchain, and NFT technology mean for Intellectual Property Ownership?

- Will we see a change in the patent system for inventions that involve digital content/software employed using these technologies?
  - New protection art units?
  - New type of protection category outside of patents and copyrighting?

- Does the expansion of blockchain into digital content warrant a move to more aggressive patent licensing?
  - Should we be copyrighting portions of NFT designated content in some new way and not patent licensing?

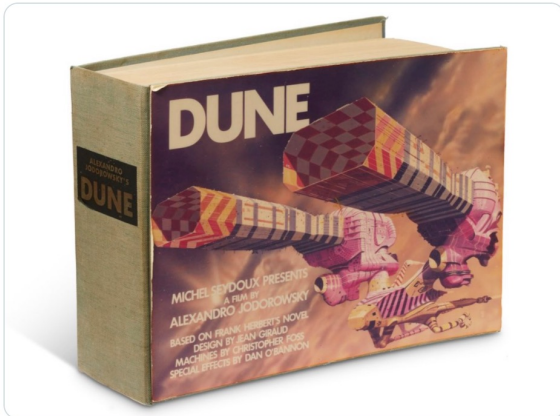# ... and if this happened already ...

Spice DAO (🌵, 🌵)
@TheSpiceDAO

We won the auction for €2.66M. Now our mission is to:

1. Make the book public (to the extent permitted by law)

2. Produce an original animated limited series inspired by the book and sell it to a streaming service

3. Support derivative projects from the community

11:28 AM · Jan 15, 2022

- "[Spice DAO (a crypto group)] seemed to misunderstand what they bought ... [o]wning a copy of the book, regardless of how expensive, does not grant them the copyrights in it ... any animated series or other derivative projects would likely run into legal issues."
- "The same is true for creating NFTs of individual pages"
- NFTs are fundamentally a way to try and introduce scarcity to digital works

https://www.intellectualpropertypulse.com/edition/weekly-ip-patent-2022-01-15?open-article-id=20925305&article-title=crypto-group-buys-dune-book--confuses-it-for-buying-the-rights&blog-domain=plagiarismtoday.com&blog-title=plagiarism-today

What is being protecting in this space so far?

- **Applications built on top of blockchain technologies**
  - Insurance transactions (e.g., Allianz has announced its successful pilot of a smart contract solution to automate catastrophe swap transactions)
  - Financial transactions (Bank of America, Coinbase Global, Monex Group, BIT Mining, etc.)
- **Traceability Techniques**
  - recording movements of a product throughout the supply chain
- **Combining AI with Blockchain**
- Modeling
- Consensus Methods
- Payment Technologies

https://www.lexology.com/library/detail.aspx?g=10f56b96-b249-4621-949c-f25514fc127a

Blockchain & Cryptocurrency Strategy

- **Wider foreign filings more important for cryptocurrency innovations**
  - Sales/in use occurrences are possible from any location with a computing device
  - Financial transactions are involved
  - China is a huge player in blockchain inventions/companies
- **Litigation is not common yet in these fields!**
  - As soon as someone begins profiting from the patents, it will happen
- **Consider Trade Secrets** before disclosing all concepts in a patent application

Blockchain & Cryptocurrency Technology in the Claims

- **Methods, Systems, and Computer-Readable Medium Claims**

- **Examples of potentially patentable core technologies:**

  - Blockchain technology changes, distributed ledgers, storage, data structures

  - Transaction protocols, processing and validation methods

  - Security – Digital wallets   – Smart contract platforms

  - Exchanges – Mining – Consensus methodologies

  - Merchant services

  - Applications of any combination of the above

Describing Cryptocurrencies & Blockchain Technologies in the Specification

- **Subject Matter Eligibility** To avoid, detour, or fight Alice 101-based rejections, build in descriptions for advantages, technical solutions to technical problems, practical applications, improvements to technology, and specific results outcomes:
  - Example advantage of inventions using blockchain or cryptocurrency:
    - Cost and error reduction of transactions over conventional transactions
    - Tamper-resistant/secure over conventional transactions
    - Fraud deterrence over conventional transactions
    - Reduction in errors/system failure over conventional transactions

Describing Cryptocurrencies & Blockchain Technologies in the Specification

- **Adjust for open source nature of the software**
  - carefully curate a robust description of the nature of the invention
    - why is your innovation new?
    - what problems are solved that exist in the prior art?
  - ensure you have included descriptions for aspects that are not part of the open source pieces

Example – Google LLC - US20210203661A1

1. A system comprising:

    a plurality of devices configured with a portable user account to synchronize account events to a distributed log …

    … receiving a request [from a requestor in the plurality of devices] … to access the portable user account … triggering a query to determine access rights …

    in response to receiving an approval response to the query:

        assigning a provision status to [the requestor], the provision status indicating whether [the requestor] is assigned as an inner entity or as an outer entity for the portable user account,

        providing, for the [requestor], access to at least a subset of the portable user account according to the assigned provision status, and
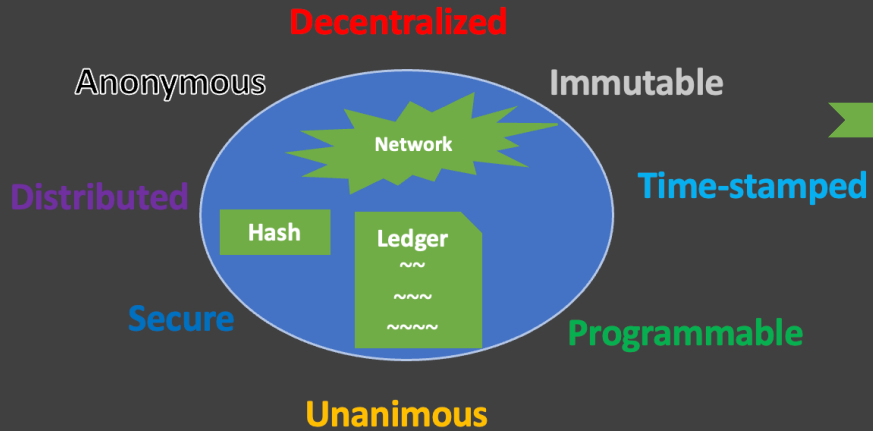
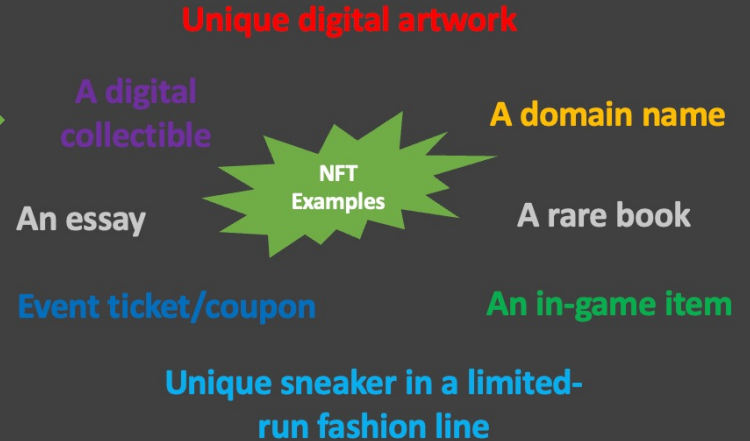   updating the distributed log to include the [requestor] based on the provision status.

FIG. 2A
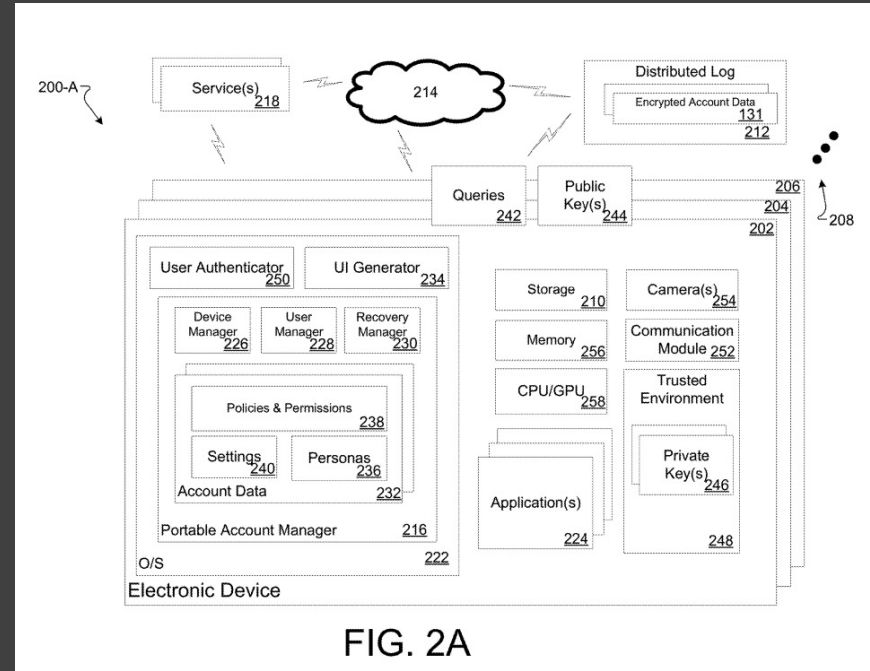
Key Takeaways

- Blockchain innovations continue to be a growth sector in the patent landscape

- Web3 should be an interesting growth step

- When drafting blockchain applications, build in help for Subject Matter Eligibility rejections

A domain name

A digital collectible

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Unique digital artwork

Unique sneaker in a limited-run fashion line

NFT Examples

Litecoin Ethereum Coin Bitcoin Ripple Coin Dash Coin

What questions do you have?

Network

Hash

Ledger
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~~~
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Blockchain

https://ethereum.org/en/nft/
https://www.wallstreetmojo.com/cryptocurrency-top/
https://www.euromoney.com/learning/blockchain-explained/what-is-blockchain