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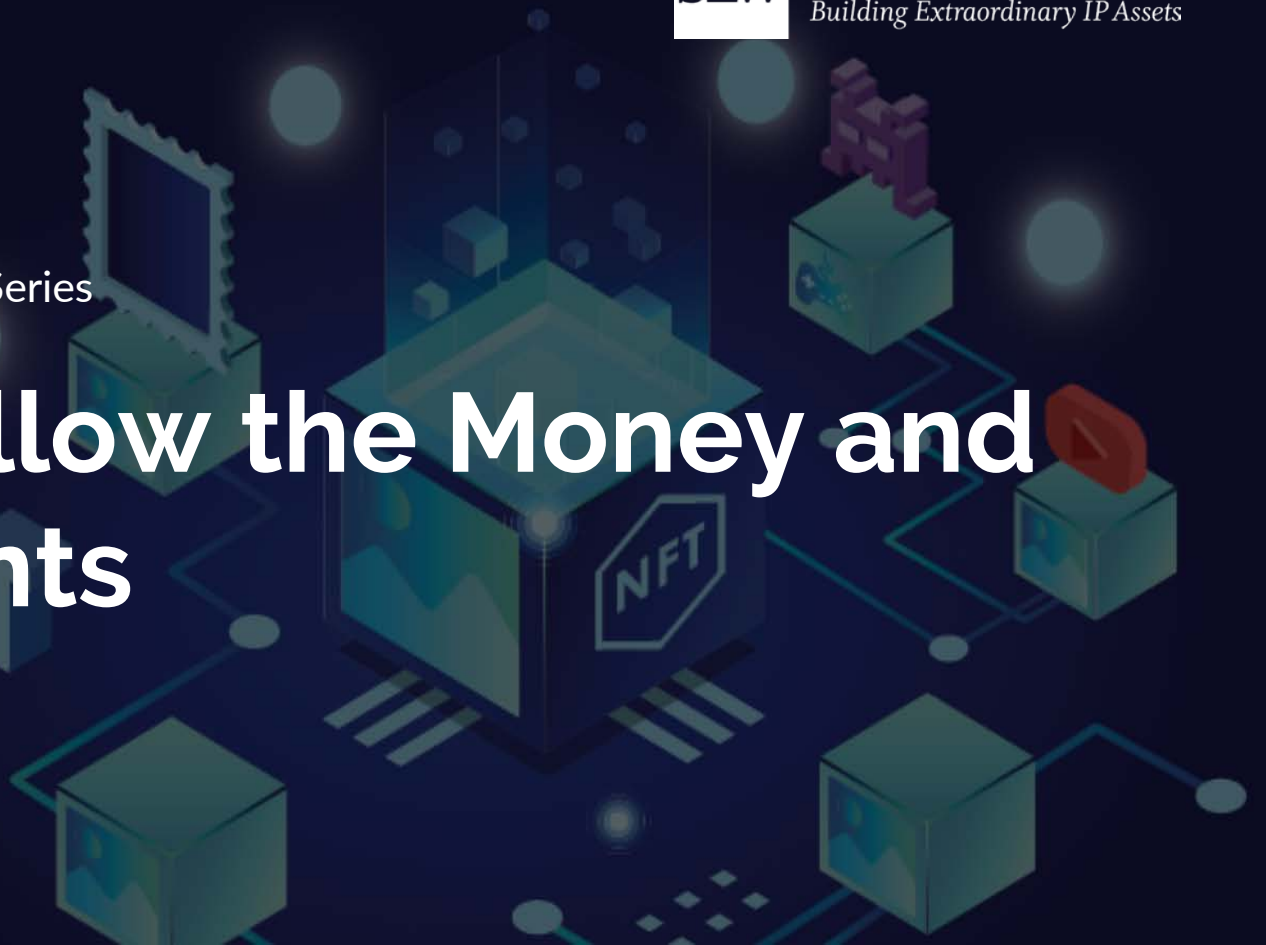
Emerging Tech Webinar Series

NFTs: Follow the Money and the Patents



Before We Get Started...

Recording

A link to the recording and slides will be emailed to all registrants.

Questions

Type in the question box and we will answer in real time or during the Q&A.

Social

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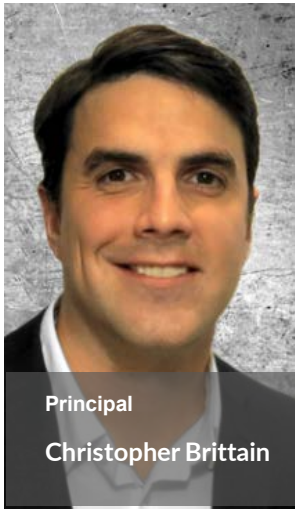
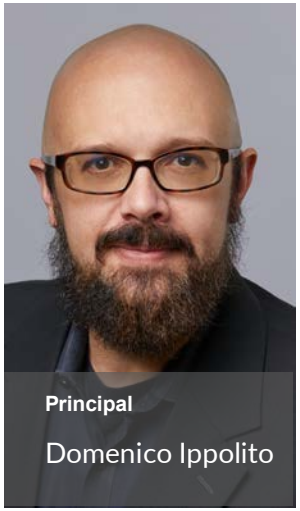
Panel

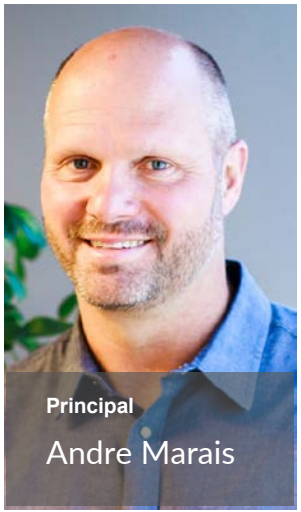
Dapper Labs



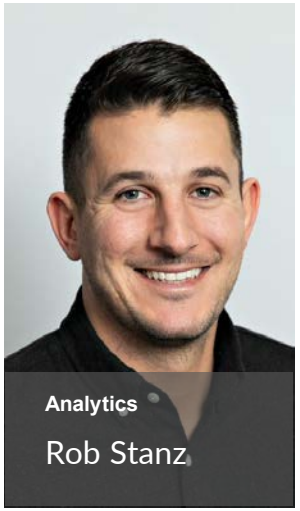
Schwegman Lundberg & Woessner



Schwegman Lundberg & Woessner



Schwegman Lundberg & Woessner



Schwegman Lundberg & Woessner

Overview

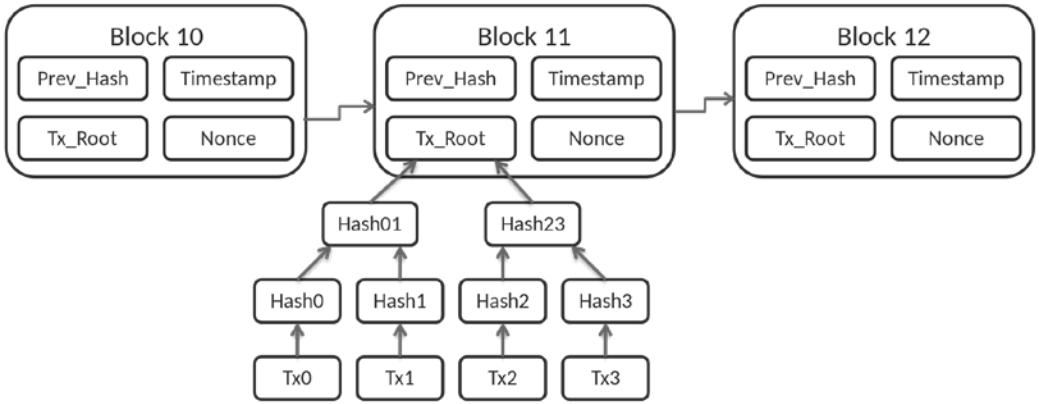
- What is an NFT?
- NFT Market and Patent Landscape
- Guest Speaker Scott Shipman: Discussion and Q & A

What is an NFT?

An introduction to NFT technologies, with demonstrations.

NFT Pre-requisite: What is a blockchain?

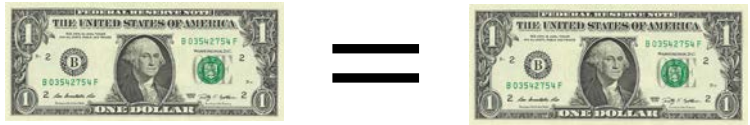
- A **blockchain** is a distributed database in which (essentially) any user can perform reads/writes to send or receive coins (or data) *immutably*.
- Immutability: blockchains implement different tools to ensure that **what is written to the chain stays written**. (Example tools: node consensus, cryptographic proofs such as PoW or PoS).
- The blockchain = the database, whereas tokens (fungible tokens, NFTs) = "items" in the database.



Example blocks of the Bitcoin blockchain.

NFT Pre-requisite: What is a token? (E.g., a fungible token.)

- Generally, tokens on a given blockchain are blockchain-based “data units” that can be sent/received/owned on a given blockchain.
- A Bitcoin is a “token” on the Bitcoin blockchain (this is not 100% accurate, but close enough).
- Ethereum blockchain enables creation/management of many different token types.
- Tokens can be created via a **smart contract** on a given blockchain, where the tokens are created, traded, and have any additional attributes as specified by that smart contract.
- Fungible tokens can be exchanged for one another and are assumed to be identical (in form and function).
- Examples: (1) US dollars are fungible (if you trade 1 dollar for 1 dollar, you walk away with: 1 dollar), (2) SHIB tokens on Ethereum: Trade one SHIB coin (on Ethereum) for another SHIB coin, you end up with: 1 SHIB coin.



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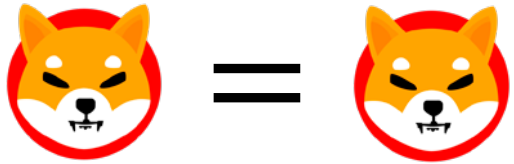

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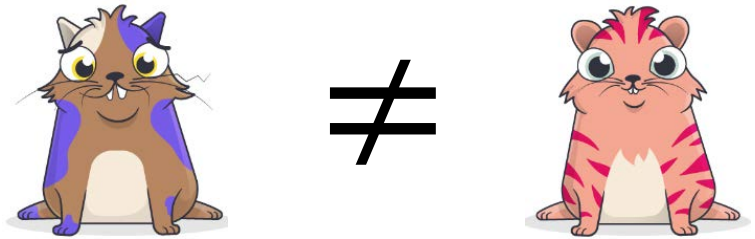
What is a non-fungible token (NFT)?

- An NFT is a blockchain token that is held as *unique and distinct* on the blockchain. They are not fungible and cannot be exchanged for each other. NFTs ***can*** be used to represent ownership of digital or physical assets.

- For example, on the Ethereum blockchain, a basic NFT can include the tuple of: {TokenID; ContractID}, and the entire blockchain network acts per ERC721 to treat that tuple as unique.

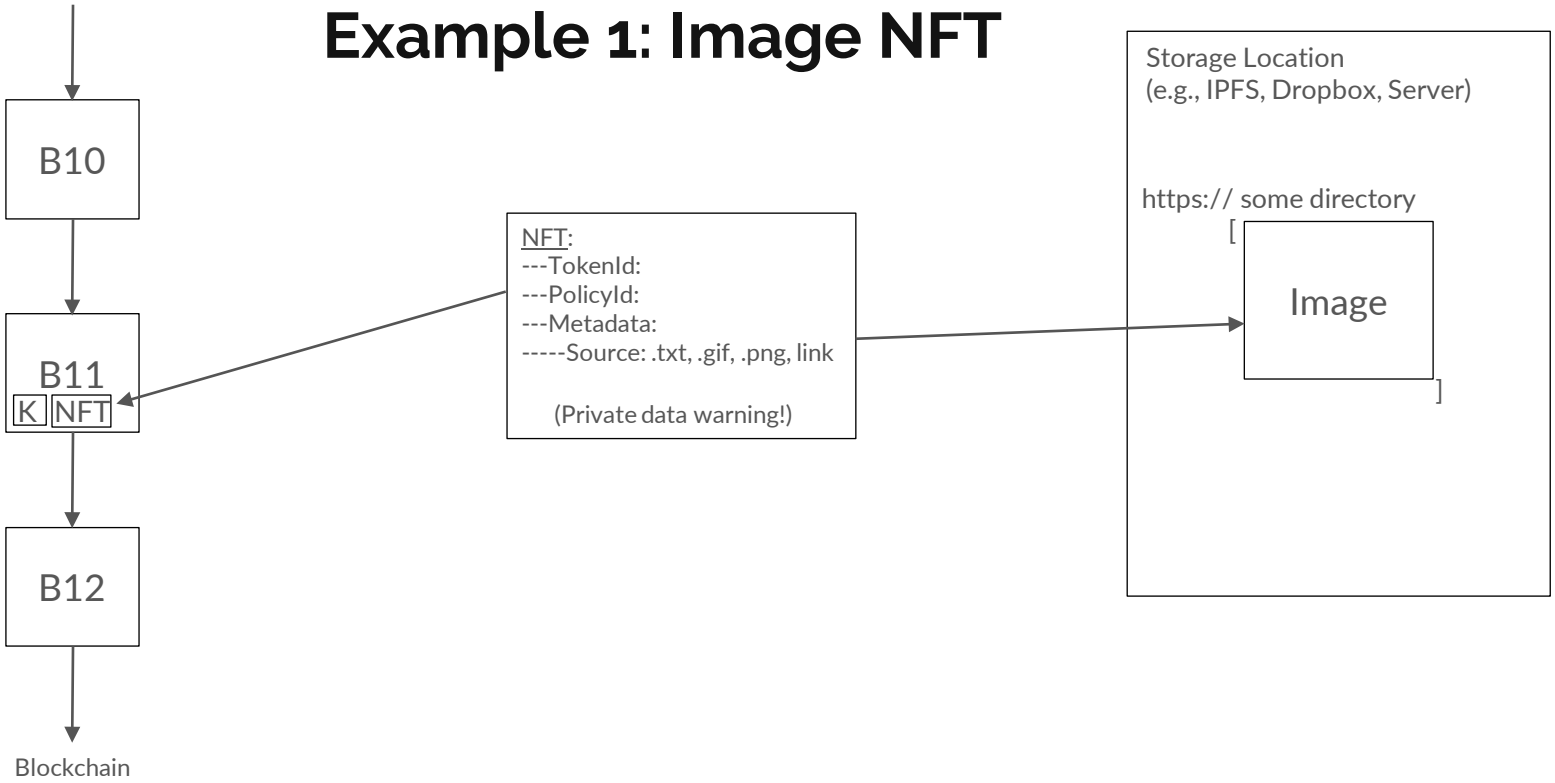
- An NFT can be linked to a "thing" using metadata. E.g., to link to **underlying content** (e.g., a linked artwork image), or the metadata can be used **intrinsically** per the blockchain's smart contract (e.g., CryptoKitties) to create visual content (e.g., CryptoKitties attributes of different CryptoKitties).
- Examples:



NFT Demos

- Exploring an image-based NFT
- An access-controlled NFT

Example 1: Image NFT



Example 1 : The Code

Input:

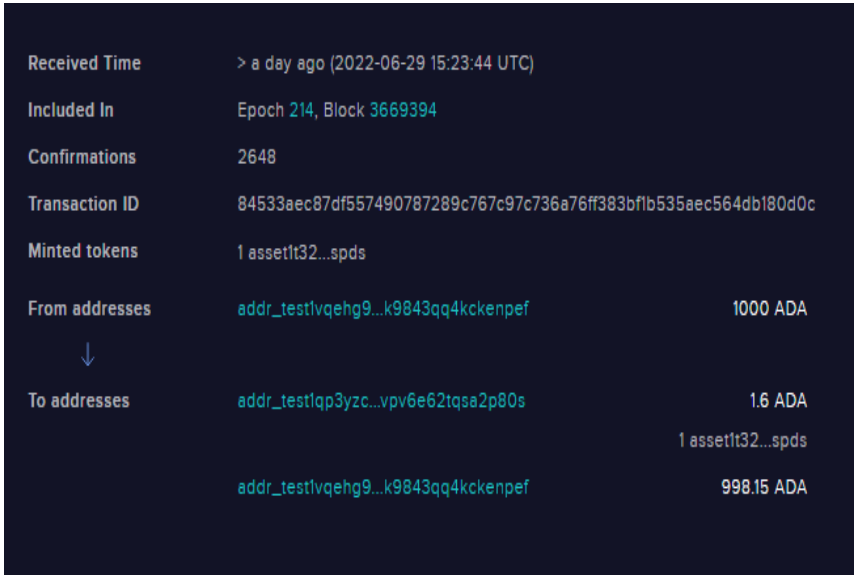
```
In[28]:= winnienftjune29 = ResourceFunction["MintNFT"][<|
           "AssetName" → "winnienft",
           "Name" → "June 29 Winnie NFT",
           "Thumbnail" → "shorturl.at/hmpJP",
           "ThumbnailMIMEType" → "image/png",
           "Source" → "shorturl.at/moHL7",
           "SourceMIMEType" → "image/jpg",
           "Description" → "winnienft_dropbox"
           |>,
          <|"OwnerAddress" → "addr_test1qp3yzcsw65qmmwsha3rkmhvt2clem0y27a49avgrnqnfaycn7a4jqaah7jqw2mc9us89q6ygy8sfdj76y4vpv6e62tqsa2p80s",
           "PrivateKey" → myKeys["PrivateKey"]|>,
          "Preview" → False];

In[29]:= Dataset[winnienftjune29]
```

Output:

Out[29]=

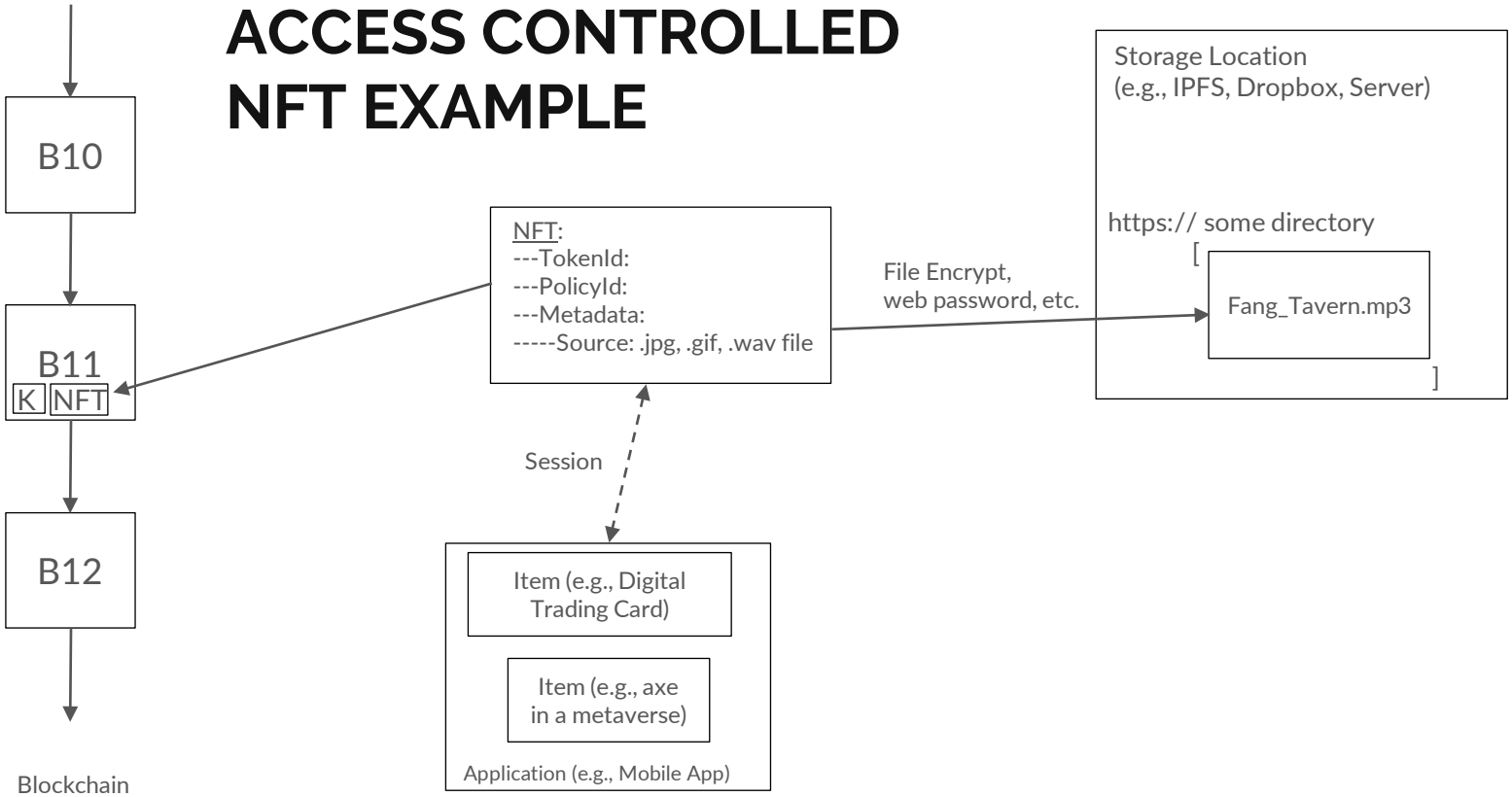
BlockchainBase	{Cardano, Testnet}
Fee	250 000 lovelace
ByteCount	787
CreatorAddress	addr_test1vqehg9uhutur2uctxngt8ccshrgaaf9uvav8mk9843qq4kckenpef
OwnerAddress	addr_test1qp3yzcsw65qmmwsha3rkmhvt2clem0y27a49avgrnqnfaycn7a4jqaah7jqw2mc9us89q6ygy8sfdj76y4vpv6e62tqsa2p80s
OutputAmount	1 600 000 lovelace
PolicyScript	<| …2 |>
PolicyID	2653d50b411a7591381f8c8dbfd8d79990e49698a38307be9db7e63d
Assets	{…1}
TransactionID	84533aec87df557490787289c767c97c736a76ff383bf1b535aec564db180d0c
BlockchainTransaction	…

Example 1: Transaction ID on Explorer



Example 1: The NFT Underlying Content

ACCESS CONTROLLED NFT EXAMPLE



Example 2: The Code

Input:

In[58]:=
```
musicjune29 = ResourceFunction["MintNFT"][<|
      "AssetName" → "musicnft",
      "Name" → "fang tavern",
      "Thumbnail" → ImageResize[image, 100],
      "Source" → "shorturl.at/tuABU",
      "SourceMIMEType" → "mp3",
      "Description" → "great song with copyright"
      |>,
     <|"OwnerAddress" → "addr_test1qp3yzcsw65qmmwsha3rkmhvt2clem0y27a49avgrnqnfaycn7a4jqaah7jqw2mc9us89q6ygy8sfdj76y4vpv6e62tqsa2p80s",
      "PrivateKey" → myKeys["PrivateKey"]|>,
     "Preview" → False];
```

In[59]:=
```
Dataset[musicjune29]
```

Output:

Out[59]=

BlockchainBase	{Cardano, Testnet}
Fee	250 000 lovelace
ByteCount	810
CreatorAddress	addr_test1vzjm2a25r8tmyuu4ndgujhpsa5t00hyg7nehkgak8tl6g3qz5883w
OwnerAddress	addr_test1qp3yzcsw65qmmwsha3rkmhvt2clem0y27a49avgrnqnfaycn7a4jqaah7jqw2mc9us89q6ygy8sfdj76y4vpv6e62tqsa2p80s
OutputAmount	1 600 000 lovelace
PolicyScript	<| …2 |>
PolicyID	caa2f57b42ba9938359412f6b34cc56fb52acd2aff44febafa85bdce
Assets	{…1}
TransactionID	ef673f594cd43fda7ba1954a89c03aff36f70eff27a87f8b837ea8115dc170ec
BlockchainTransaction	…

Example 2: Transaction ID on Explorer

Received Time	> a day ago (2022-06-29 15:54:49 UTC)	
Included In	Epoch 214, Block 3669447	
Confirmations	2611	
Transaction ID	ef673f594cd43fda7ba1954a89c03aff36f70eff27a87f8b837ea8115dc170ec	
Minted tokens	1 asset1xqn...7hn0	
From addresses	addr_test1vzjm2a...gak8tl6g3qz5883w	1000 ADA
↓		
To addresses	addr_test1qp3yzc...vpv6e62tqsa2p80s	1.6 ADA
		1 asset1xqn...7hn0
	addr_test1vzjm2a...gak8tl6g3qz5883w	998.15 ADA
Total Output	999.75 ADA	
Transaction Fee	0.25 ADA	

Metadata


```
{
  "version": "1.0",
  "caa2f57b42ba9938359412f6b34cc56fb52acd2aff44febafa85bdce": {
    "musicnft": {
      "name": "fang tavern",
      "files": [
        {
          "src": "shorturl.at/tuABU",
          "name": "fang tavern",
          "mediaType": "mp3"
        }
      ],
      "image": "ipfs://QmYZ2iHdX9DfTLVyd53JUhWKqhWNskgXxVf8pyysBxXLYK",
      "mediaType": "image/png",
      "description": "great song with copyright"
    }
  }
}
```

Example 2: Linked Restricted Page

Enter the password for this link

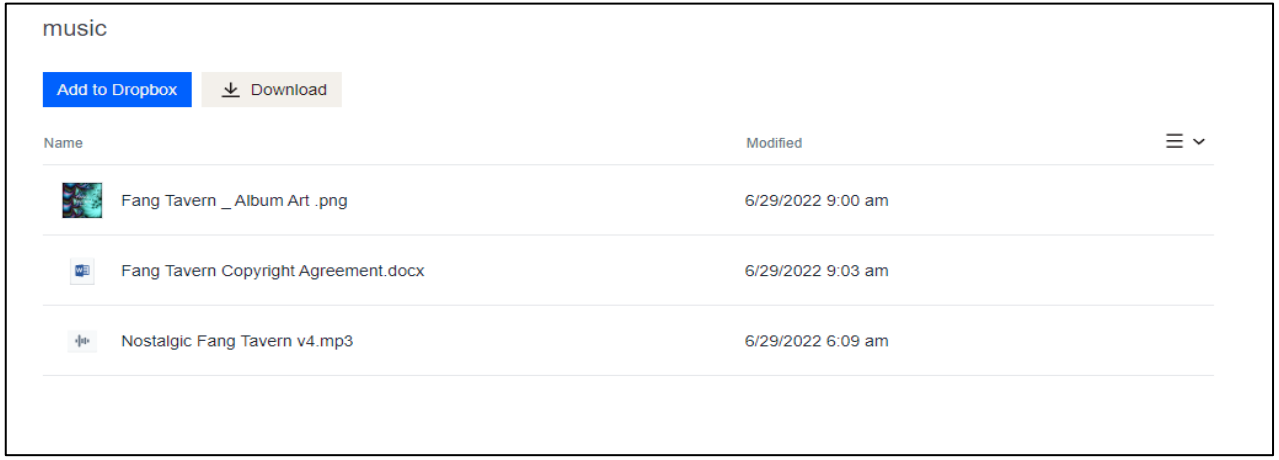
Password

Link password

Continue

Password is: "password123"

Example 2: Restricted Content (Music!)



Album Art

FANG TAVERN MUSIC NFT - COPYRIGHT AGREEMENT

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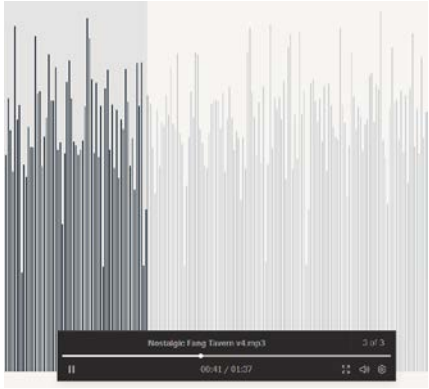
Sample Copyright Agreement



MP3 Song

What about copyrights?

- Issues with NFTs and copyrights:
  - Often the content associated with a given NFT will be copyrighted, as copyrights can exist automatically in United States.
  - Rule: In the US, a copyright exists ***automatically*** in an original work of authorship once it is fixed in a tangible medium that is perceptible either directly or with the aid of a machine or device.
- Can NFTs take the place of copyright law, or ignore copyright law?
  - No. Copyrights stem from the United States Constitution's Copyright Clause. Attempted creation and transfers of copyrights or copyright-licenses (e.g., license to display, commercial uses, etc.) should conform with copyright law.
  - Does a transfer of an NFT cause a transfer of the copyright? There are specific requirements for transferring copyrights. (Including that the assignment be in "writing and signed by the owner of the rights conveyed or such owner's duly authorized agent.") Many NFT marketplaces vaguely state their terms and conditions, or do not state their T/C's or anything about the copyrights that exist as part of the underlying works of NFTs.
- Generally, ownership of an NFT *does not* imply ownership of the copyright(s) of the associated content (unless Copyright law requirements in the given jurisdiction are met).

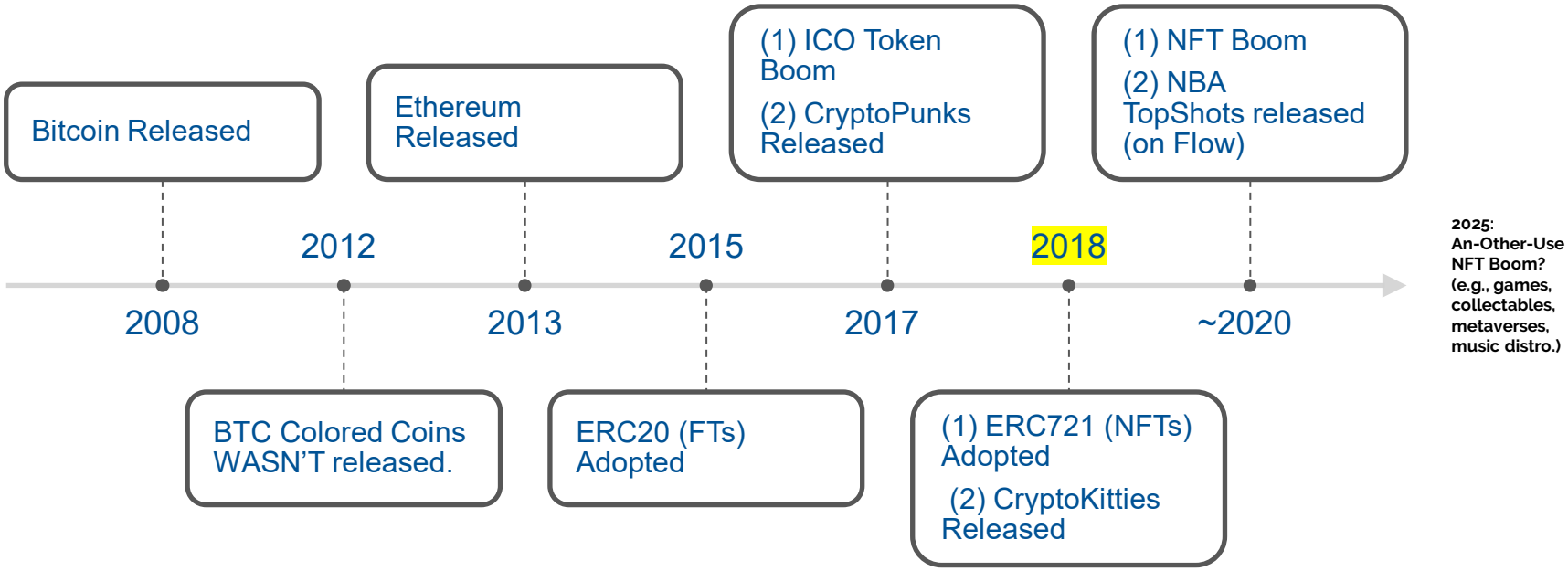
What about patents?

- Can technological improvements related to NFTs be patented? Yes, technical problems with technical solutions are likely to encompass patentable subject matter (but would still need to overcome prior art issues).
- Potential Technical Problems and Solutions of NFT technology that may be patentable include:
  - The Blockchain Oracle problem (authentication of external off-chain events (e.g., weather in Portland, Oregon on Jan. 20th, 2025), which can require a 3rd Party "Oracle" to validate the event as true or not true for the blockchain transaction to succeed).
  - Hacks (e.g., a given blockchain may be secure, but the website to interact with it may not be secure).
  - Strongly associating/tethering NFT underlying content with the NFT. Restricting access to underlying content (e.g., to transfer an NFT with associated content, where the buyer is the only person to be able to access the associated content).
  - Efficient on-chain storage solutions for NFT content (e.g., on-chain storage is expensive).
  - Novel approaches for interpreting NFT metadata (e.g., CryptoKitties).
  - Cross chain transfers of NFTs and NFT content (e.g., Atomic Swaps).
  - Energy issues (e.g., from Proof of Work miners)
  - Satisfying local laws (e.g., satisfying privacy laws to comply with local law, complying with copyright laws to form valid agreements, satisfying securities laws to avoid SEC(!), etc.)

The NFT Market and Patent Landscape

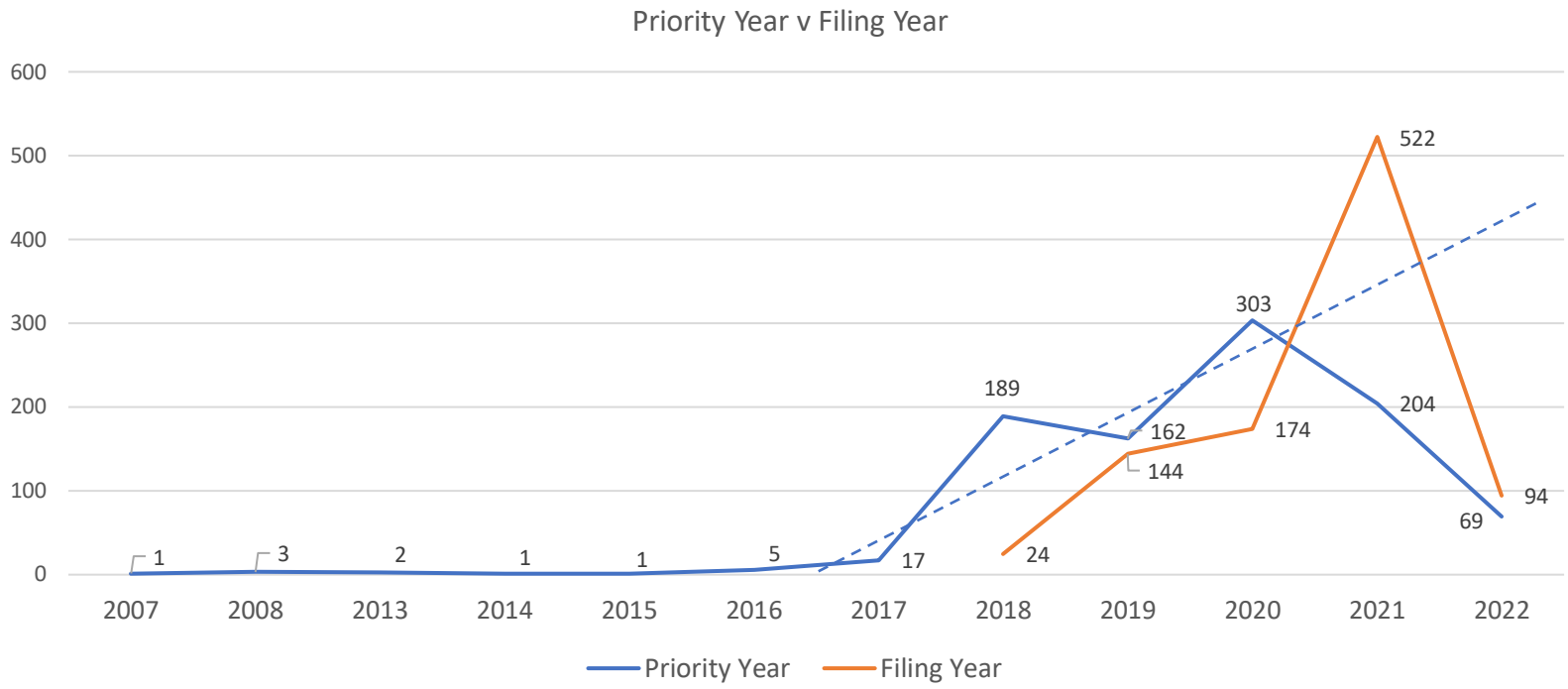
A Rough Crypto-Timeline (emphasis on Bitcoin and Ethereum)

(Follow the money!)



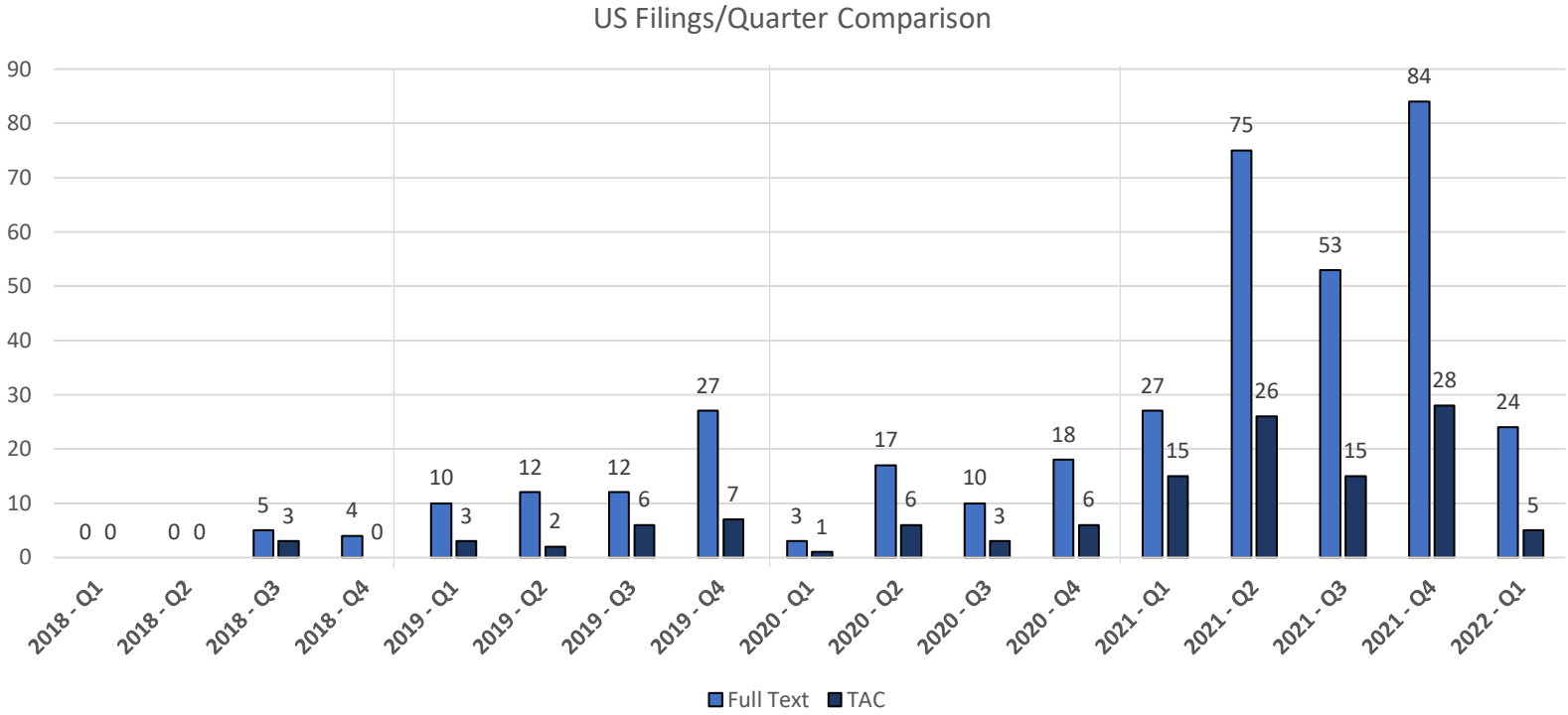
Priority/Filing Year Comparison (Non-Fungible Token in Full-Text)

(Follow the patents!)



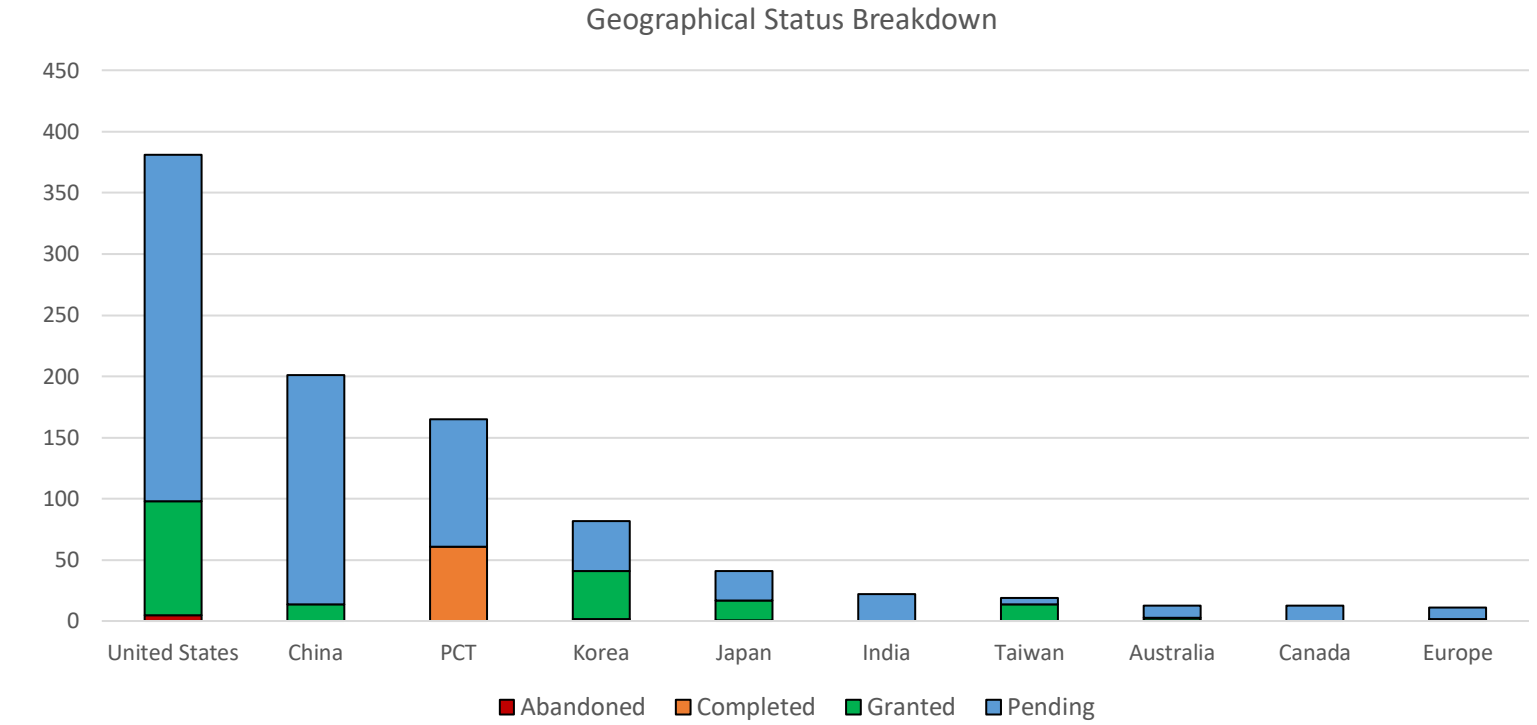
**Public data only – 18 month lag from filing to publication

US Filings/Quarter (Follow the patents!)

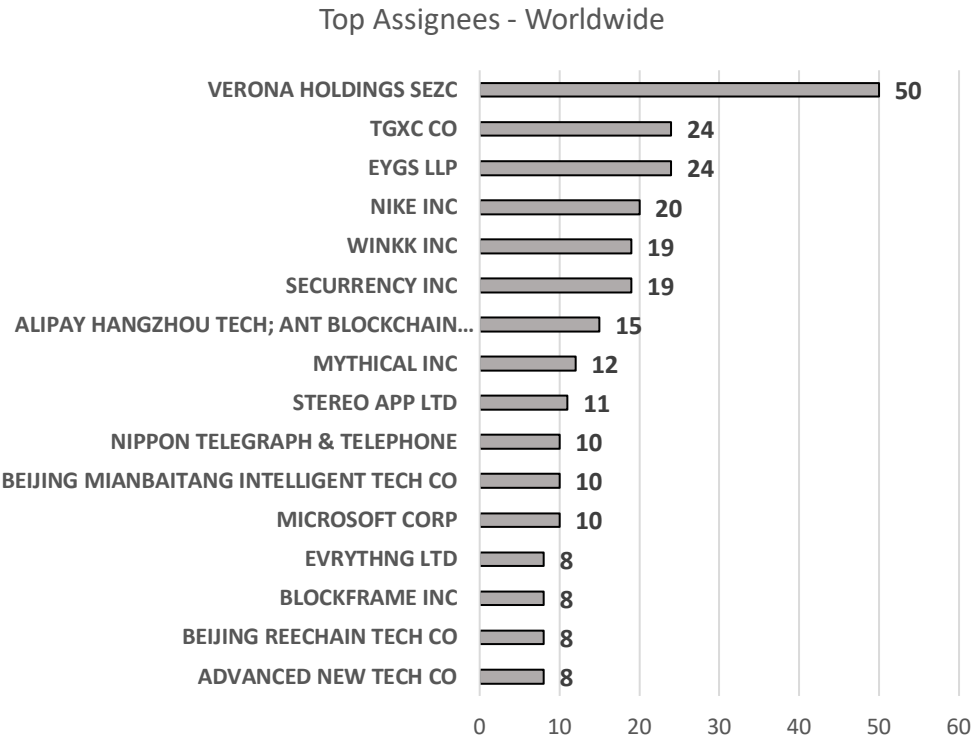


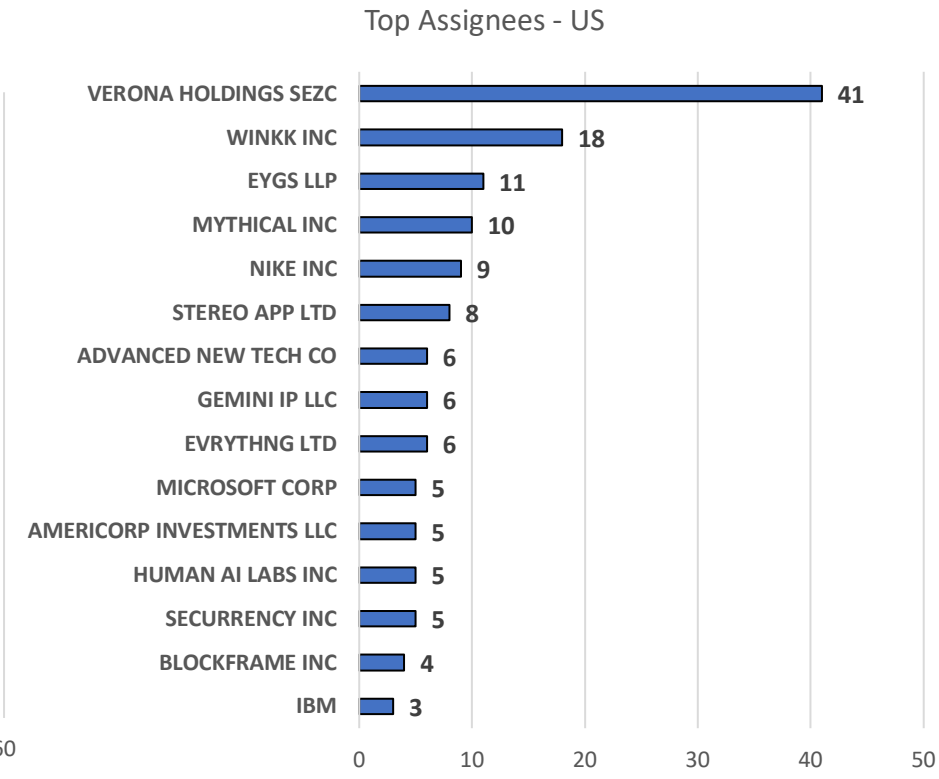
**Public data only – 18 month lag from filing to publication

Geographical Breakdown (Non-Fungible Token in Full-Text)

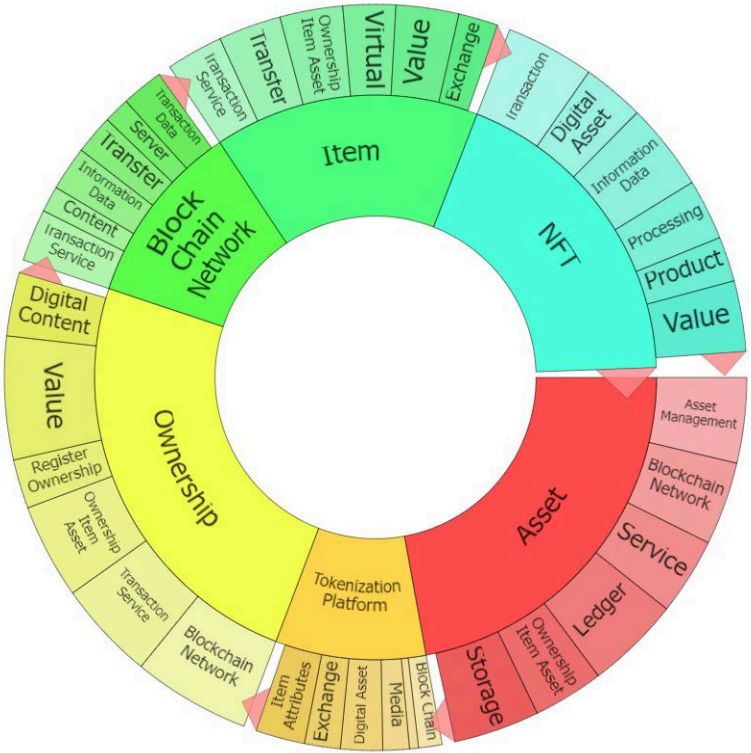


Top Assignees (Non-Fungible Token in Full Text)





Concept Landscape Title/Abstract/Claims searched only



- The Blockchain Oracle Problem (integration/authentication of external off-chain events, e.g., weather in Boise, Idaho on Jan. 20th, 2025).
- Strongly associating/tethering NFT underlying content with the NFT.
- Restricting access to underlying content (e.g., to transfer an NFT with associated content, where the buyer is the only person to be able to access the associated content).
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- Satisfying local laws (e.g., satisfying privacy laws to comply with local law, complying with copyright laws to form valid agreements, satisfying securities laws to avoid SEC(!), etc.)

Top Cited Patents

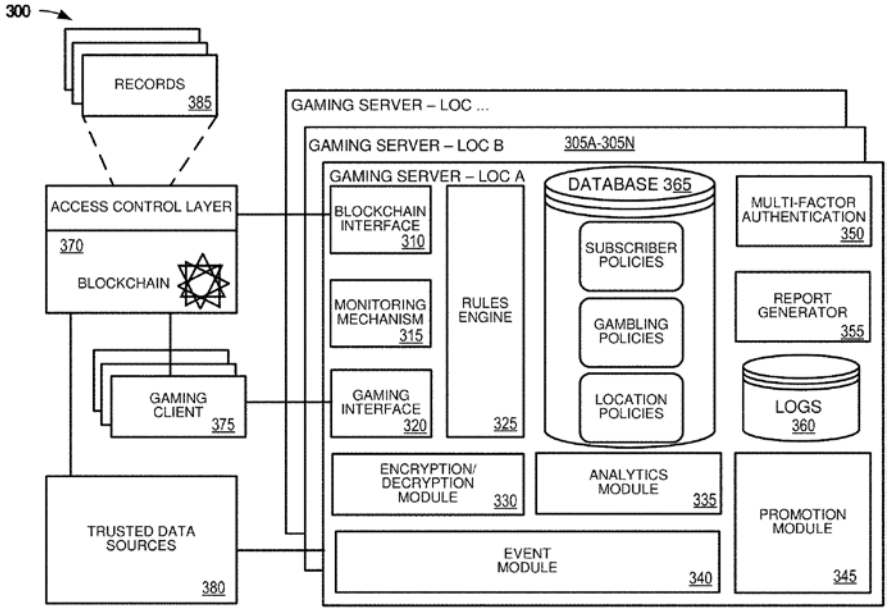
Patent/Pub No.	Publish/Grant Date	Granted Patent No.	App Number	File Date	Priority Date	Title	Status	Current Assignee	Forward Cites
US20190130701A1	5/2/2019	US10614661 B2	16/176864	10/31/2018	10/31/2017	Management Of Virtual Goods In Distributed Multi-Ledger Gambling Architecture	Now Granted	AMERICORP INVESTMENTS LLC	43
US10505726B1	12/10/2019		16/423671	5/28/2019	12/7/2018	System and method for providing cryptographically secured digital assets	Granted	NIKE, INC.	31
US20190334957A1	10/31/2019	US11102255 B2	16/396523	4/26/2019	4/27/2018	PROJECT CREATION AND DISTRIBUTION SYSTEM	Now Granted	FILMIO, INC.	30
US20200005284A1	1/2/2020	US11348099 B2	16/459500	7/1/2019	7/1/2018	Systems and Methods for Implementing Blockchain-Based Content Engagement Platforms Utilizing Media Wallets	Now Granted	ARTEMA LABS, INC.	26
US20190303892A1	10/3/2019		16/370338	3/29/2019	3/30/2018	DIGITAL ASSET EXCHANGE	Pending	VERONA HOLDINGS SEZC	25
US20190299105A1	10/3/2019		16/367149	3/27/2019	3/27/2018	METHOD AND SYSTEM FOR CONVERTING DIGITAL ASSETS IN A GAMING PLATFORM	Pending	TRULY SIMPLISTIC INNOVATIONS INC	25
US10540654B1	1/21/2020		16/437841	6/11/2019	2/12/2018	System, method and program product for generating and utilizing stable value digital assets	Granted	GEMINI IP, LLC	23
US20200211409A1	7/2/2020		16/452598	6/26/2019	12/28/2018	UNIFIED IDENTIFICATION PROTOCOL IN TRAINING AND HEALTH	Pending	CONÉCTATE SOLUCIONES Y APLICACIONES SL	23
US20190220836A1	7/18/2019		16/200155	11/26/2018	1/14/2018	Methods and Systems for Media Distribution Employing Contracts Implemented in a Distributed Ledger	Abandoned	ROBOT CACHE, INC.	21
US20190370792A1	12/5/2019		16/429075	6/3/2019	6/3/2018	PEER-TO-PEER CRYPTOCURRENCY AND CRYPTO ASSET TRADING PLATFORM	Pending	VVOW COMPANY LIMITED	18
US20200184041A1	6/11/2020	US11308184 B2	16/707741	12/9/2019	12/7/2018	VIDEO GAME INTEGRATION OF CRYPTOGRAPHICALLY SECURED DIGITAL ASSETS	Now Granted	NIKE, INC.	17
US20190221076A1	7/18/2019	US10832522 B2	16/365157	3/26/2019	10/31/2017	Management Of Virtual Goods In Distributed Multi-Ledger Gambling Architecture	Now Granted	AMERICORP INVESTMENTS LLC	16
US20200273048A1	8/27/2020	US11295318 B2	15/931764	5/14/2020	12/7/2018	SYSTEMS AND METHODS FOR PROVISIONING CRYPTOGRAPHIC DIGITAL ASSETS FOR BLOCKCHAIN-SECURED RETAIL PRODUCTS	Now Granted	NIKE, INC.	16
US20190287175A1	9/19/2019		16/357209	3/18/2019	3/16/2018	Investment Fund Token Ownership	Pending	SALT BLOCKCHAIN INC.	15

10,614,661 Management of virtual goods in distributed multi-ledger gambling architecture

(Publication Highly Cited – Full Text)

Assignee: Americorp Investments

G07F17/3251 Payment aspects of a gaming system, e.g. payment schemes, setting payout ratio, bonus or consolation prizes involving media of variable value, e.g. programmable cards, programmable tokens



1. A method comprising:
receiving, through a user interface of a gaming service, a customized wager that comprises a virtual good associated with a player account of the gaming service, wherein the virtual good is a non-physical virtual object that can be used within a game and is not a currency or a credit;
executing a determination to add a new record for the customized wager to a distributed blockchain ledger of a distributed multi-ledger platform that is associated with the gaming service, wherein the determination is made by a consensus decision between a subset of multiple nodes associated with the distributed multi-ledger platform;
publishing, to the distributed blockchain ledger, the new record of the customized wager when the subset of multiple nodes reaches the consensus decision to add the new record to the distributed blockchain ledger; and
locking usage of the virtual good until an outcome of the customized wager is determined. (smartK)

10,505,726 System and method for providing cryptographically secured digital assets

(Highly Cited – Full Text)

Assignee: Nike

H04L9/0866 Generation of secret information including derivation or calculation of cryptographic keys or passwords involving user or device identifiers, e.g. serial number, physical or biometrical information, DNA, hand-signature or measurable physical

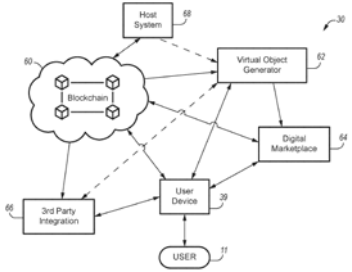


FIG. 3

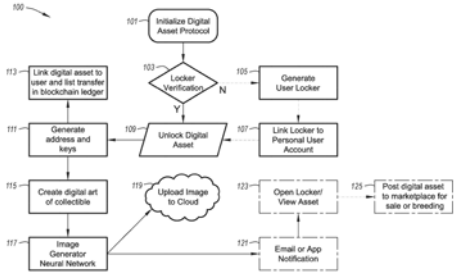


FIG. 4

FIG. 7

1. A method for automating generation of cryptographic digital assets associated with articles of footwear or digital design files representative thereof, each of the articles of footwear including an upper for attaching to a foot of a user and a sole structure attached to the upper for supporting thereon the foot of the user, the method comprising:

receiving, via a middleware server computer over a distributed computing network from a remote computing node, a transaction confirmation indicative of a validated transfer of an article of footwear or a digital design file representative thereof from a first party to a second party;

determining, via the middleware server computer from an encrypted relational database, a unique owner identification (ID) code associated with the second party;

generating a cryptographic digital asset associated with the article of footwear or the digital design file, the cryptographic digital asset including a digital shoe and a unique digital shoe ID code, and wherein the digital asset is transferrable separate from the article of footwear or the digital design file;

linking, via the middleware server computer, the cryptographic digital asset with the unique owner ID code;

transmitting, via the middleware server computer to a distributed blockchain ledger, the unique digital shoe ID code and the unique owner ID code to record transfer of the cryptographic digital asset to the second party on a transaction block;

receiving a digital transfer proposal with a request to transfer the cryptographic digital asset to a third party;

determining a new unique owner ID code associated with the third party;

linking the cryptographic digital asset with the new unique owner ID code; and

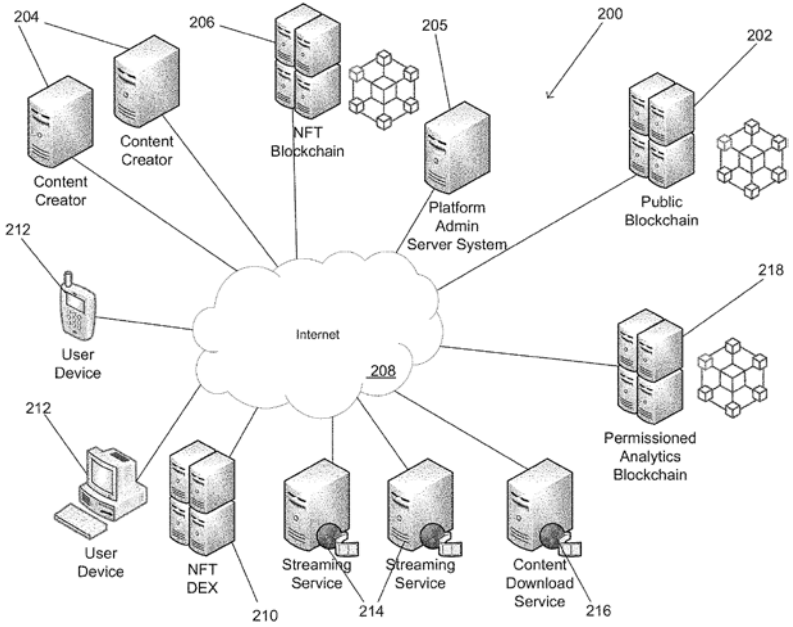
transmitting the unique digital shoe ID code and the new unique owner ID code to the distributed blockchain ledger for recordation on a new transaction block.

11,348,099 Systems and methods for implementing blockchain-based content engagement platforms utilizing media wallets

(Publication highly cited – Claims)

Assignee: Artema Labs

G06Q20/36 Payment architectures, schemes or protocols characterized by the use of specific devices or networks using electronic wallets or electronic money safes



1. A user device, comprising:
a processor;
memory containing a media wallet application;
wherein the processor is configured by the media wallet application to:
securely store non-fungible tokens (NFTs), where each NFT is associated with a programmatically defined smart contract written to at least one immutable ledger, wherein NFTs are cryptographic tokens that are created with respect to specific content;
display a user interface;
receive via the user interface user instructions concerning data access permissions;
determine the data access permissions in accordance with the user instructions concerning the data access permission received via the user interface; and
write media consumption data to the at least one immutable ledger in conjunction with the determined data access permissions;
present an offer via the user interface; and
receive a user instruction to accept the presented offer via the user interface;
initiate a transfer of at least one NFT and write updated data access permissions to the at least one immutable ledger in response to receipt of the user instruction to accept the presented offer.

VC $$$: Big Picture 2021

- $33B invested in startups in crypto and blockchain tech sectors
  - 43% = trading and services around crypto assets
  - 17% = NFTs, DAOs, Web3 and Metaverse ($5.5B)

NFT Investors

Sources: Cointelegraph, CB Insights

VC $$$: Investors

- **Traditional VCs – diversify and betting on Web 3.0**
  - Andreesen Horowitz (a16z)
    - Ripple, Coinbase, OpenSea, Dapper Labs, Solana Labs, Mythical Games, Axie Infinity, Faraway, Royal
    - *40% of an VC deals by value for NFT companies (PitchBook)*
  - Coatue Management
    - Dapper Labs, OpenSea
  - Benchmark
    - Soare
  - Sequoia
  - Moonrock Capital
    - CoinBurp, Exceedme, Showcase, Phuture, Jenny

- **Specialist VCs - Crypto**
  - Coinbase Ventures
    - Anima, Makersplace, ImmutableX, NEAR Protocol
  - Pantera Capital
    - *145 investments in crypto*
    - Codex Protocol, Maecenas
  - Digital Currency Group
    - *165 crypto startups*
    - NFTBank.ai, BigTime Studios
  - Placeholder
  - Playchain Capital
  - CoinFund
  - Blockchain Capital
  - Paradign

VC $$$: Investments

NFT – Pure Marketplaces: Trade

- OpenSea – raised $427M/ valuation $13B
- Rarible – raised $16M
- SuperRate – raised $10M
- NiftyGateway – raised $500K /acquired by Gemini (Winkelvoss Twins)

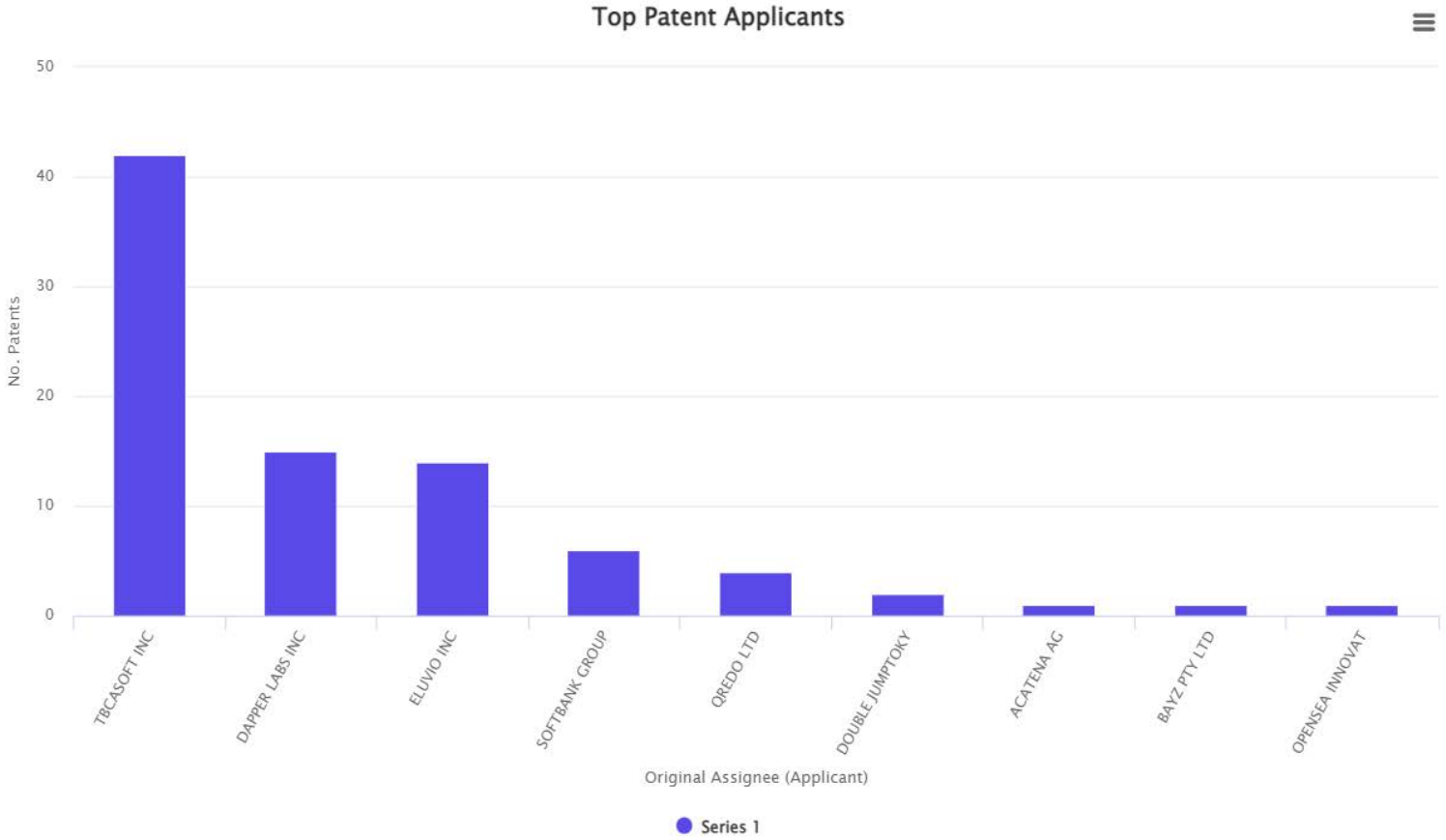
NFT – Hybrid Marketplaces: Create and Trade

- Dapper Labs – raised $607M
- Koodos – raised $2B (Accel, First Round, Tribe)
- Forte – raised $995M (A16Z, Battery Ventures, Canaan Partners)
- Sorarte – raised $738M (Accel, Benchmark, Bessemer, SoftBank)
- Genies

VC $$$: 10 Top (Crunchbase)

Organization Name	Headquarters Location	Last Funding Amount Currency (in USD)	Total Funding Amount	Top 5 Investors
Dapper Labs	Vancouver, British Columbia, Canada	$ 250,000,000	$ 607,450,000	Animoca Brands, Digital Currency Group, Andreessen Horowitz, BlockTower Capital, Warner Music Group
Genesis Digital Assets	Limassol, Limassol, Cyprus	$ 431,000,000	$ 556,000,000	FTX Exchange, Kingsway Capital, NYDIG, Electric Capital, Ribbit Capital
Bitpanda	Vienna, Wien, Austria	$ 263,000,000	$ 546,013,472	Wintermute Trading, Speedinvest, DST Global, Jump Capital, LeadBlock Partners
OpenSea	New York, New York, United States	$ 300,000,000	$ 427,220,000	TokenZ, Animoca Brands, Crowd Venture Capital, COIND, Buck Stash
Autograph	Santa Monica, California, United States	$ 170,000,000	$ 205,000,000	Andreessen Horowitz, Kleiner Perkins, 01 Advisors, Kathryn Haun, Cosmic Venture Partners
Magic Eden	San Francisco, California, United States	$ 130,000,000	$ 159,500,000	Sequoia Capital, Greylock, Solana Ventures, Lightspeed Venture Partners, Electric Capital
Faze		$ 100,000,000	$ 117,400,000	**Dapper Labs**, Mirae Asset Global Investments, Tiger Global Management, B Capital Group, Insight Partners
Qredo	London, England, United Kingdom	$ 80,000,000	$ 108,513,562	Coinbase, Alumni Ventures, Figment, Celsius Network, LedgerPrime
Bitwise	San Francisco, California, United States	$ 70,000,000	$ 84,500,000	Blockchain Capital, Craft Ventures, General Catalyst, Coinbase Ventures, Caffeinated Capital

VC $$$: 50 Top (Crunchbase)



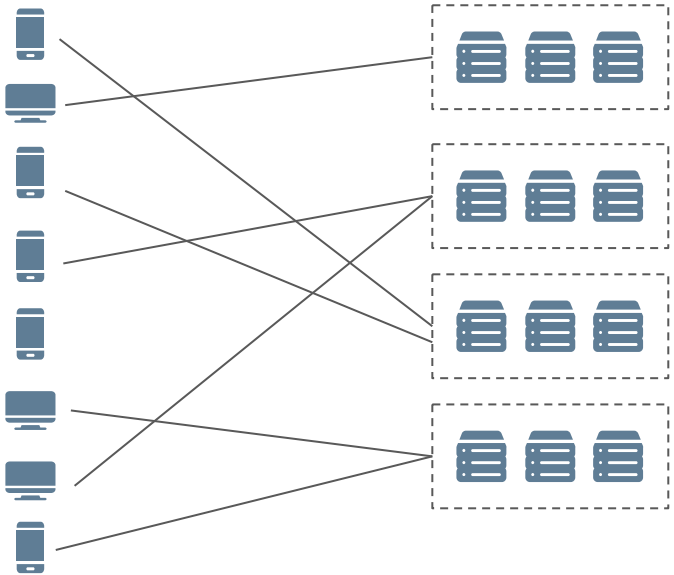
Guest Speaker with Scott Shipman, GC of Dapper Labs

Digital Collectible NFT Primer & Dapper Labs Overview

June 2, 2022

The Web3 Solution For Digital Content

On today's internet, individuals upload billions of images, videos, songs, and other files to centralized platforms.

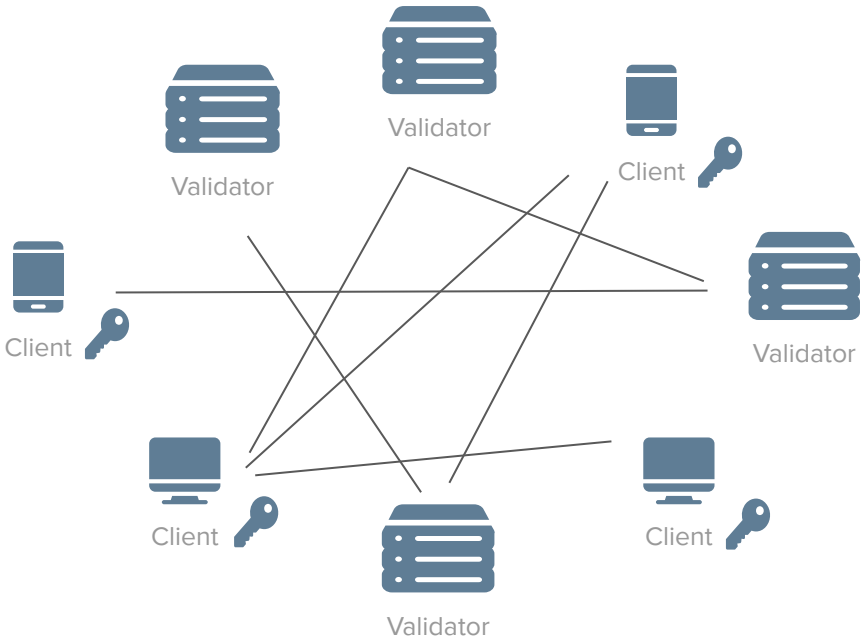


But then what happens?

1. **The file is copied to the internet platform's servers**
2. **Ownership of the file transfers to that company**
3. **The internet platform (and not the individual creator) monetizes the content and keeps most of its value**
4. **The internet platform determines its use (and not the individual creator or subsequent users)**

Blockchains enable public access and private ownership of any digital file in a decentralized manner that provides for easy transferability

The creator and any subsequent owner of a digital collectible NFT can ensure that the value created does not accrue to a third party.



Blockchains Prove:

1. **Verifiable Ownership**
2. **Public access**
3. **Provenance (i.e Transaction History)**
4. **Composability (i.e Interoperability)**

So what's an NFT?

- Non-Fungible Tokens are units of data stored on a blockchain that represent the ownership of a unique and specific underlying file or asset, which can be bought and traded.
- They are unique in nature, non-interchangeable, and non-divisible.
- There are many different types of NFTs, with varying purposes and benefits of ownership. Some enable access to communities, events or games; provide royalties or other rewards; validate credentials or asset ownership; and/or are simply appreciated as art or mementos.

Digital Collectible NFTs – the next generation of trading cards

A digital collectible NFT is ownership of a unique file that lives at a specific address on a blockchain that only the owner can control.

Advantages over a physical collectible:

- **Authenticity** — A digital file on a blockchain contains metadata that describes the collectible and makes it uniquely verifiable and not subject to fraudulent replication
- **Rarity** — A digital file tied to a digital collectible NFT is by definition rare in that it is unique and cannot be replicated
- **Indivisibility** — Unlike fungible tokens (such as Bitcoin), a digital collectible NFT cannot be subdivided into fractional amounts or have multiple owners
- **Transferability** — The blockchain makes it easy to transfer or sell a digital collectible NFT almost instantaneously to any other user around the world
- **Ownership Guaranteed** — The ownership of any digital collectible NFT is verifiable

Digital collectible NFTs seem complicated. Can’t I just take a screenshot of the file? Why is any of this valuable?

Unique
The value lies in owning the authentic file that can be verified on a blockchain and can never be replicated or forged.

+

Authentic
The value of anything is the price someone in the marketplace is willing to pay. Anyone can take a photo of the Mona Lisa or create a replica of it, but it is not the original, verified painting created by the artist. People are willing to pay a premium for authentic and original collectibles.

+

Tamper Proof
With digital collectible NFTs, it can easily be proven that the file is real and tamper proof. This is an issue that the physical collectibles space has never been able to solve adequately.

=

A Ticket to a New Version of Fandom
Digital collectible NFTs are a new ticket into the world of fandom for sports and entertainment. They enable unique and authenticated experiences that cannot be counterfeited and are helping to bridge the real and digital worlds.

Dapper Labs & Digital Collectible NFTs:

Bringing fans closer to the brands they love

Empowering content creators

Democratizing ownership on the Internet

Dapper Labs is the **pioneer** of the digital collectible NFT and the foremost blockchain studio in the world.

Through Dapper Labs' unique ecosystem, consumers can purchase, display, and trade the digital equivalent of collectible cards with the transparent, transferrable, and powerful authenticating features of blockchain and NFTs.

And with over 2 million Dapper accounts, we're well on our way to achieving our mission of helping everyone understand, experience, and benefit from Web3.

Dapper Labs has onboarded some of the biggest brands in the US:

Fan base: **400M**

Fan base: **33M**

Fan base: **400M**

Fan base: **275M**


TOP SHOT
STARTER
PACK
Click to reveal
Click to reveal
Click to reveal

Dapper Labs Ecosystem

Studio

The studio receives video moments and graphics from partnering organizations and makes them into digital collectible NFTs.

- Consumers can purchase, play, and trade on the studio websites.
- Current studio partners include the NBA, NBPA, WNBA, WNBPA, NFL, UFC, LaLiga and Dr. Seuss Enterprises – with more to come.

Dapper

A way for developers and mainstream consumers to access blockchain with ease

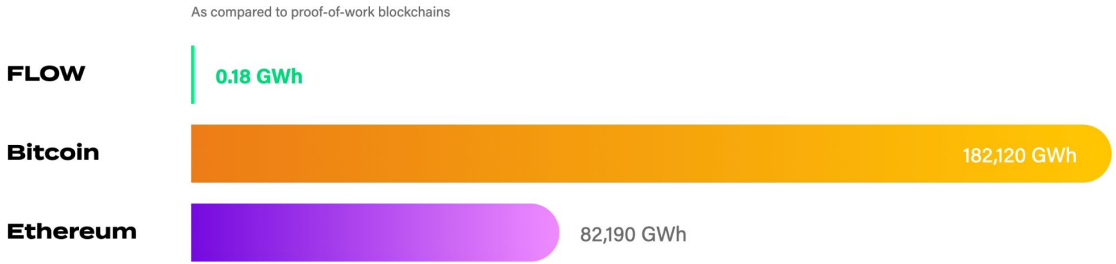
- Digital wallet for an integrated and easy-to-use payment system that accepts fiat payments through digital payments company Circle.
- It is supported and enhanced by a robust AML/KYC and compliance program to deter illicit activity and prevent fraud.
- Users can also transfer and store digital collectible NFTs from Dapper Labs' studio partners.

All of Dapper Labs' digital collectible NFTs are built on the Flow blockchain

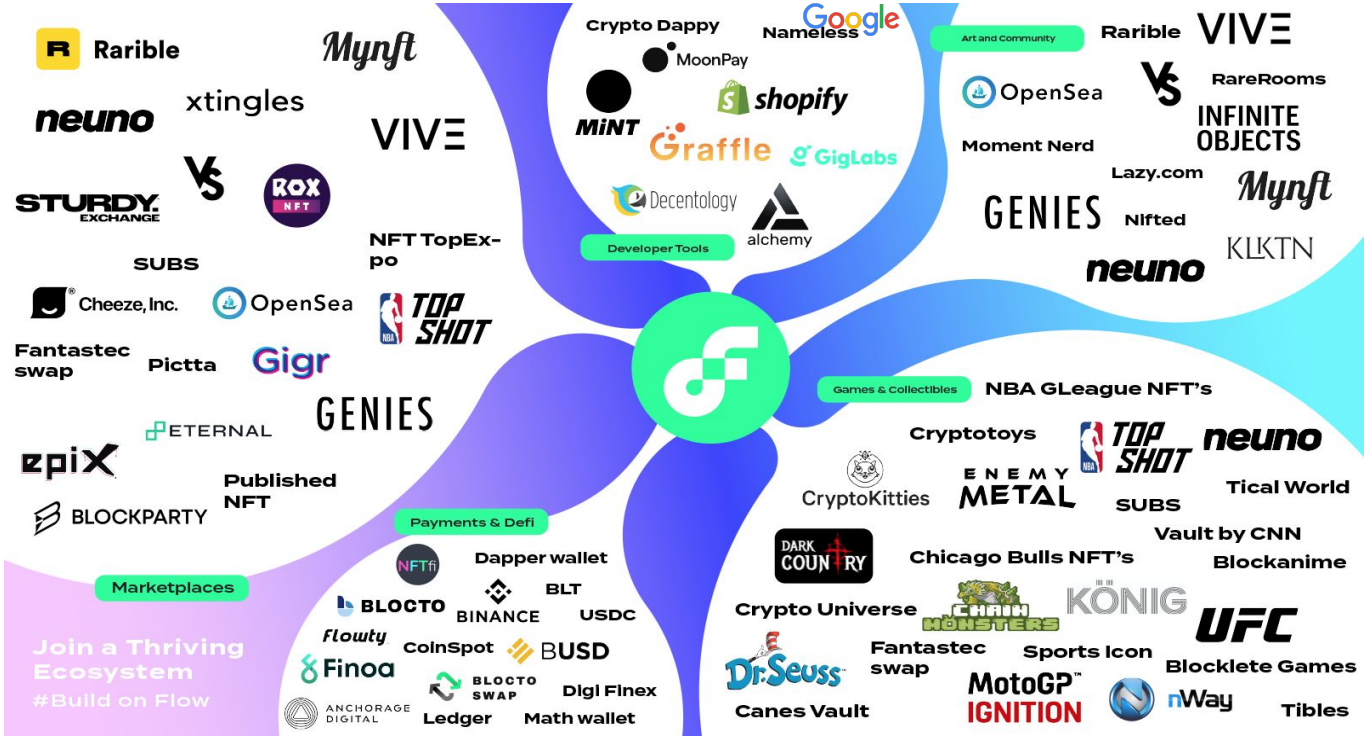
The Flow blockchain is:

- Developer Friendly: Over 6,000 developers rely on its seamless interaction for easy and safe design and deployment.
- Fast & Efficient: 6,000x higher potential throughput at 1,000x lower cost.
- Decentralized: Targeting 1,000s of operators to ensure transparency and security without compromising performance.

As a proof-of-stake (POS) blockchain, Flow operates in a very sustainable manner. Flow uses just 0.18 GWh annually, based on 2021 usage. In fact, minting an NFT on Flow takes less energy than a Google search or Instagram post.



Flow is a decentralized mainstream-ready ecosystem used by hundreds of independent developers



Dapper Labs:

The Preeminent Digital Collectible NFT Studio

Impact of CryptoKitties

In December 2017, CryptoKitties took blockchain by storm and captured the digital community's imagination of what could be possible in the utilization of blockchain technology.

The Ethereum blockchain could not handle the high number of users engaging with CryptoKitties, and people had trouble understanding its complex payments system. Dapper created Flow, which is more scalable, consumer friendly, and environmentally sustainable.

Key Statistics:

- Over $50 million in market transaction volume
- >2 million total Kitties created
- More than 150,000 total users have owned a cat

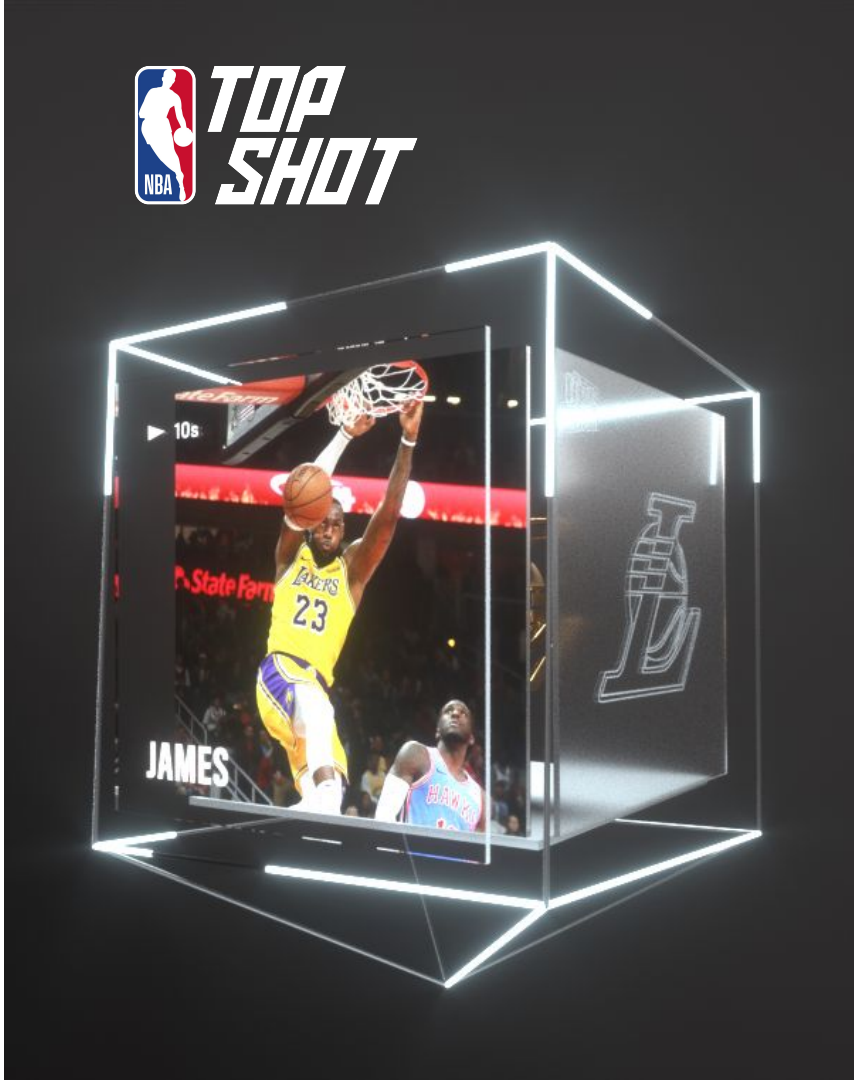
NBA Top Shot:
A Pop Culture Phenomenon

NBA Top Shot is an unprecedented collaboration amongst Dapper Labs, the NBA, and the NBA Players Association to memorialize the greatest moments in basketball history as digital collectible NFTs and offer a new way to participate in fandom.

Fans collect new Top Shots from limited edition releases, play daily challenges, and can trade with other fans on a global, 24/7 peer-to-peer marketplace.

Key Statistics:

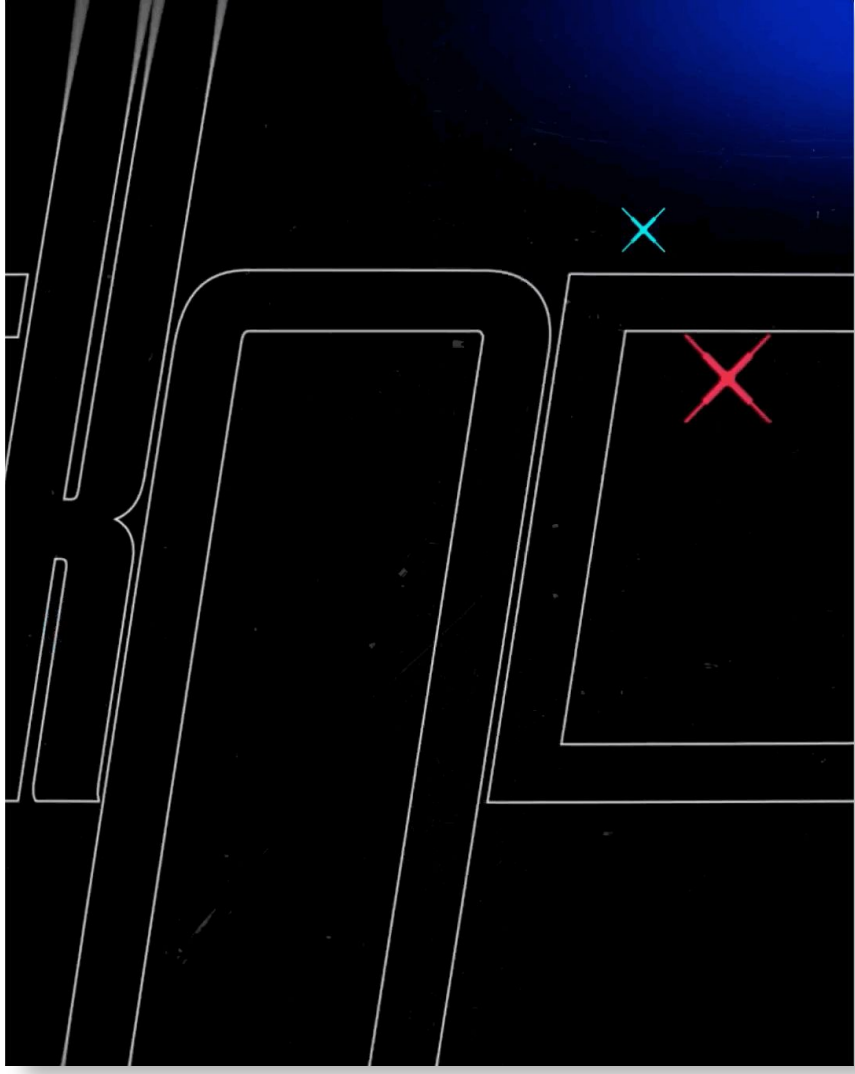
- First blockchain product to reach over 2 million users
- More than 20 million total transactions
- Over $1 billion in transaction value
- Average retail purchase price is below $10.



NFL All Day:
The Future of Fandom

NFL All Day is a long-term partnership amongst Dapper Labs, the NFL, and the NFLPA to create exclusive video-highlight-based digital collectible NFTs. NFL fans will find themselves immersed in a world that celebrates their love for the game.

These all-new digital collectible NFTs will give NFL fans the unique opportunity to collect and own the most talked about in-game moments throughout the season. Additionally, fans will get the chance to collect some of the greatest plays from NFL history, featuring current superstars and legends of the game.



WNBA Top Shot:
Equality in Women’s Sports

Dapper’s partnership with the WNBA and WNBA Players Association is part of a broader commitment to growing & supporting the game of women’s basketball.

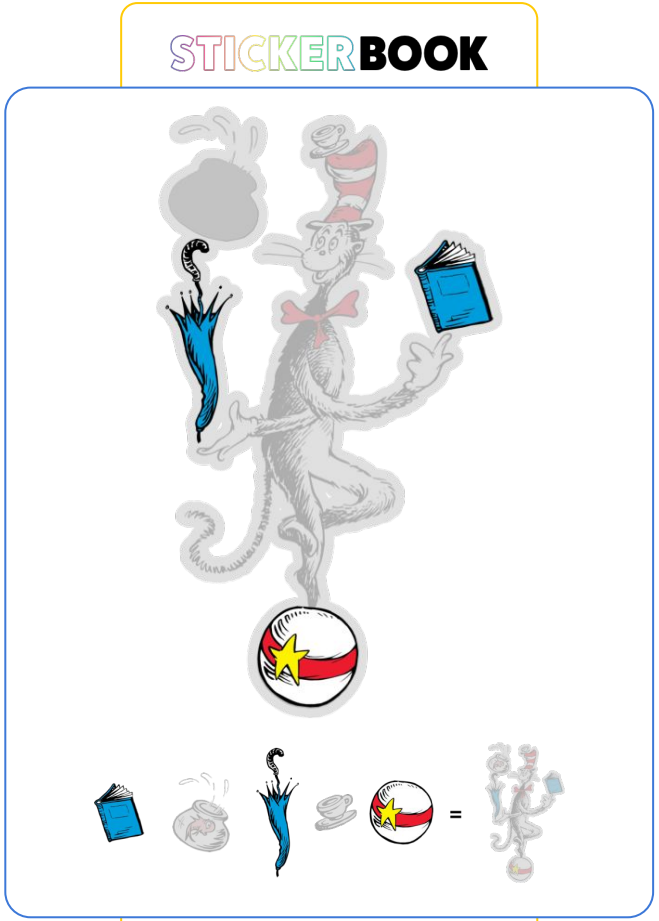
These digital collectible NFTs provide a platform to bring parity to women's sports, increasing and diversifying the avenues for fan engagement.

Dr Seuss: Whimsy On-Chain

There are few characters more beloved than Theodor Geisel's fantastical creations.

In Dr. Seuss "Mixed Up" fans will have a new opportunity to connect with their favorite whimsical world and own a piece of it forever as a digital collectible NFT. What could be more exciting than a cherished book to pass from generation from generation? Dapper Labs is bringing that to the digital space in an interactive and playful community.

Similar to sticker books when you were a kid, users can purchase digital stickers and create virtual collections of their favorite Dr. Seuss characters as well as connect and trade with other fans. By acquiring certain stickers, users can unlock unique digital content.

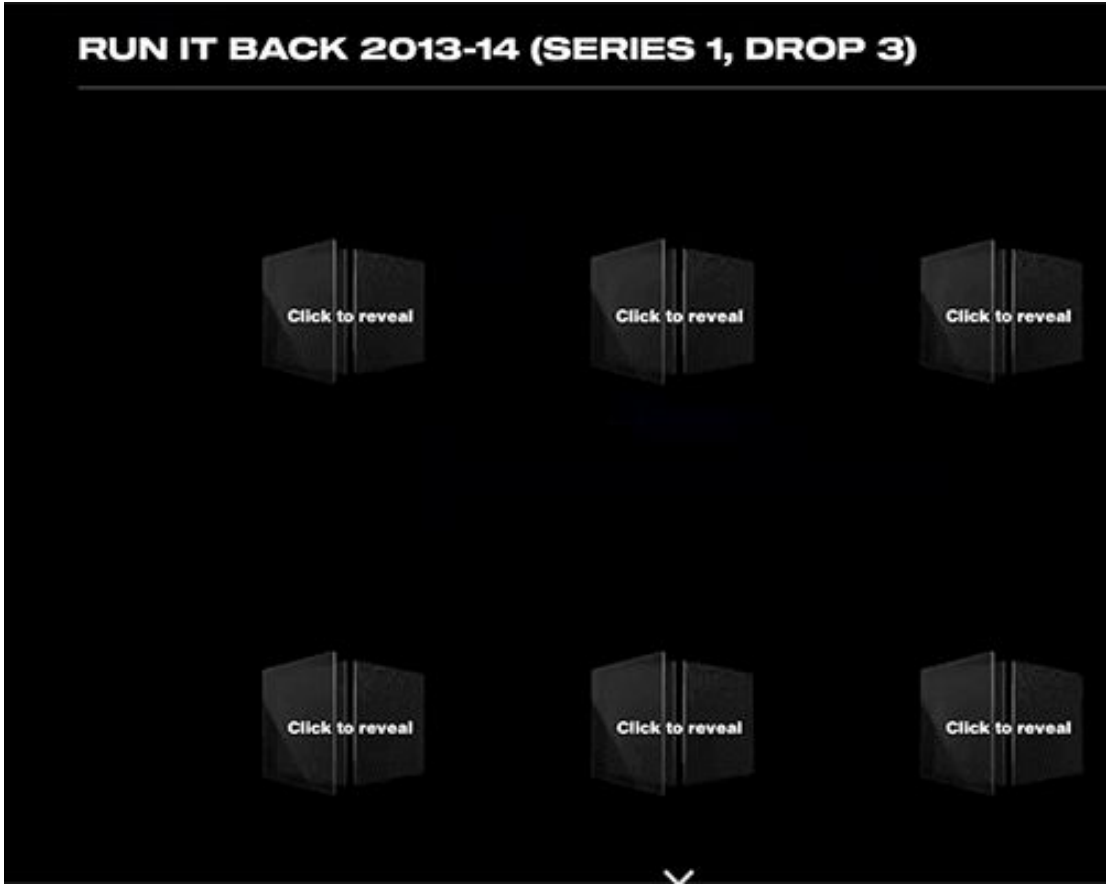


A Closer Look: NBA Top Shot

How it works: NBA & Dapper Labs select video highlights and Dapper Labs designs each Moment and decides how many to sell by uniquely numbering them. Each Moment is placed into digital packs, just like regular trading cards.

Purchasing: Packs are sold on the official NBA Top Shot website. Pack prices depend on the quality of the Moment, the stardom of the player, and the exclusiveness of the digital card. Dapper Labs fully discloses the terms and rights granted to the owner.

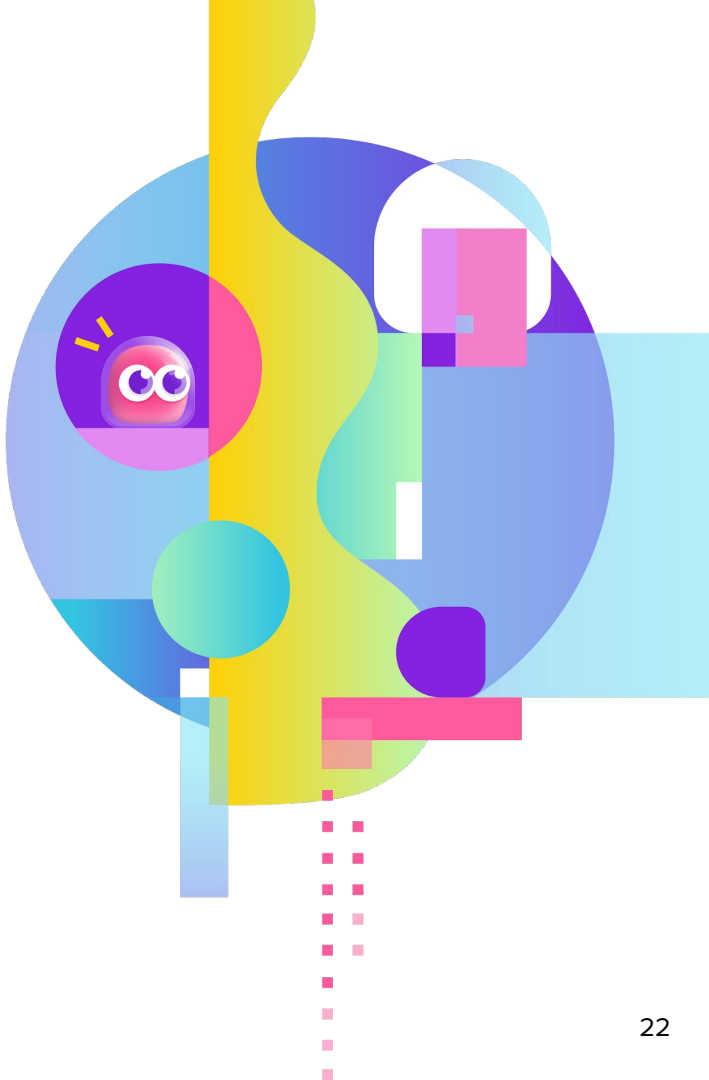
After purchase: Once a pack is purchased, those Moments go into the buyer's encrypted and secure digital wallet where they can be "showcased", transferred, or re-sold.



Promoting and Nurturing Decentralized Digital Ecosystems with Safety, Security, and Compliance

Current Regulation of Digital Collectible NFTs

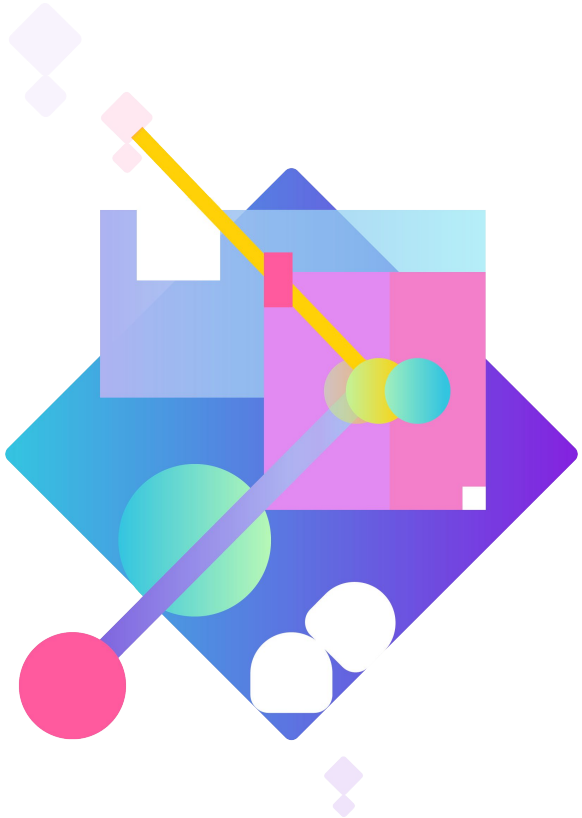
- As with any other good or collectible, the regulation of digital collectible NFT products occurs through the well-established regulatory regime enacted for consumer protection.
- This regime regulates the buying and selling of commercial products at the federal and state level in the United States.
- Specifically, the consumer protection regulatory regimes covering unfair, deceptive, or abusive acts or practices (UDAAP) or unfair or deceptive acts or practices (UDAP), disclosure, and fraud govern digital collectible NFTs.
- Dapper Labs' compliance program contains robust policies, procedures and controls based on laws, regulations, and best practices. The compliance team is composed of world-class compliance professionals with both crypto and fiat experience.



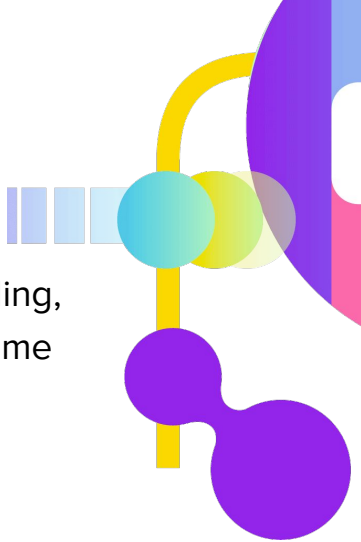
AML / KYC / CTF / Sanctions Screening Processes

- Dapper Labs is committed to setting the industry standard for compliance and has instituted a risk-based comprehensive set of industry best practices, processes, and controls to ensure that any AML/KYC and marketplace issues are mitigated appropriately.

- Examples of these best practices include implementing a sanctions compliance program and a consumer information program that includes KYC, enhanced due diligence (EDD), sanctions screening, and a transaction monitoring program.



Transaction & Market Monitoring



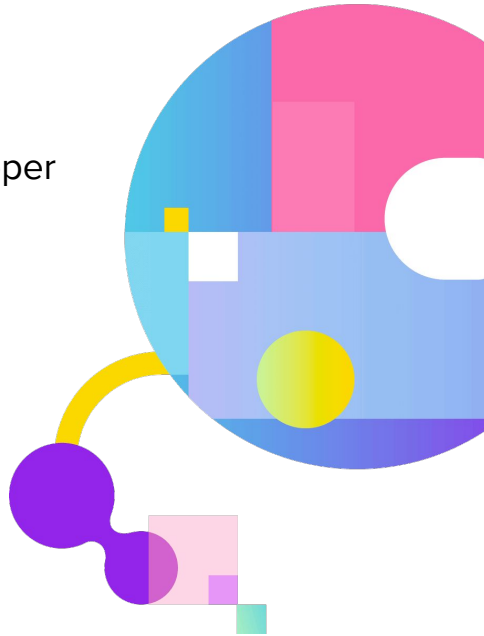
- Dapper Labs proactively monitors its marketplace for rules violations such as wash trading, price anomalies, and round tripping (i.e. instances of repeat large transactions to the same seller).
- Transaction monitoring is performed both at a user level and a transaction level for onramps, offramps, and in-platform marketplace NFT movements or transactions.
- Dapper Labs also monitors for users who buy digital collectible NFTs and then sell them at a loss, onramp structuring, transactions of users who onramp and then withdraw shortly after with minimal purchasing activity, and other potentially risky behavior.
- Dapper Labs and Chainalysis, the leading blockchain data and monitoring platform, have entered into a long-term partnership to power compliance decisions. Chainalysis' analytics and tools allow Dapper Labs to flag risky and illicit activity in real-time and to enable detailed investigations into those transactions.

Making the Digital Collectible NFT Industry Safer and Stronger

Although existing federal and state regulatory regimes provide a broad framework under which digital collectible NFTs are regulated, gaps remain, particularly in preventing illicit financing, fraud and market manipulation.

NFT markets would benefit from greater industry and regulatory coordination. Dapper Labs recommends new practices and industry standards in the following areas:

- AML/KYC Best Practices
- Market Monitoring to Prevent Market Manipulation
- Educating and Protecting Consumers and Content Creators with Respect to Intellectual Property Rights
- Pushing the Industry Forward - A Future Certification Standard and Self-Regulatory Organization



Thank you for your interest.

Questions?

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