



Introduction to NFTs

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What is an NFT?

- NFT stands for Non-fungible token.
- Unique cryptographic token that cannot be replicated.
- Can be used to represent real world items such as artwork, real-estate, identities, and more.
- Can be exchanged or traded for other NFTs or currencies.



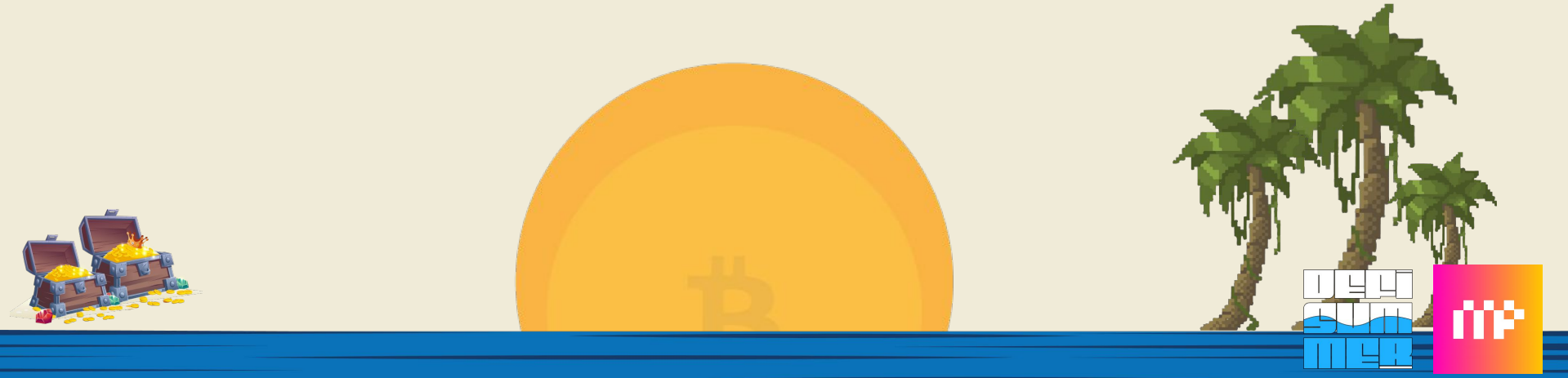
Why use NFTs?

- Fractionize physical assets such as real estate and art.
- Create new markets and forms of investment.
- Create digital collectibles, publish them in a series.
- Use for ticketing systems to prevent scalping



Current Notable NFT Examples

- NFT collectible series like CryptoKitties
- Art minting and selling sites like Rarible
- Virtual worlds like Crypto Voxels and Decentraland



Rise of NFTs

- The advent of CryptoKitties in 2017
- 2020-2021 Art NFT Rush
 - Beeple
 - OpenSea
 - Jack Dorsey Tweet
 - Origin Protocol
- NFT in gaming
 - Axie Infinity
 - Gods Unchained



Immutable X

- an open-source protocol that allows anyone to develop their own decentralized marketplace, blockchain-based games, and various other decentralized applications facilitating instant trades with zero gas fees.
- The first Layer 2 for NFTs on Ethereum
- Currently only used by Gods Unchained, but could support more in the future.



Enjin

- Enjin is infused into NFTs in the minting process.
- Every Enjin NFT can be melted back into coin.
- Creators also made the ERC-1155 protocol.
- Supports use of same items as NFTs across games.
- Game Examples: Dissolution, 9Lives Arena, Lost Relics



Minting and Burning

- The minting function allows you to create an NFT based on provided resources and place it on the blockchain.
- Generally, being placed on the blockchain means that the token is on there permanently, and cannot be removed.
- Burning, however, allows you to remove an NFT from the blockchain in an irreversible transaction.



ERC-721 and ERC-1155

- Solidity smart contract protocol for NFTs.
- Contains functionalities for viewing how many NFTs are on a specific address, transferring NFTs, and approving transfers.
- ERC-1155 was created by Enjin for their game blockchain.
- ERC-1155 allows for Fungible, Non-Fungible, and Semi-Fungible tokens (fungible tokens that can be “transmuted” into non-fungibles, like a coupon or concert ticket).
- OpenZeppelin



A Look At NFT Contracts

- Ownership
- Approve
- Transfer
- Mint
- Burn
- Breeding



NFT Marketplaces

- Rarible
- OpenSea
- BakerySwap
- Unifty
- AirNFTs
- AxiInfinity
- Gods Unchained
- Lost Relics



Resources for Learning

- [CryptoZombies](#)
- [OpenZeppelin](#)
- [DappUniversity](#)
- [Ethereum](#)
- [Investopedia](#)
- [CryptoKitties Contract](#)



Questions!

