

SPORES



SPORES NETWORK

The full-stack NFT & DeFi platform for creative industries





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Abstract

Spores Network is building a multi-chain interoperable NFT marketplace and DeFi protocols for Creative Industries: Animation, Collectibles, Digital Artworks, Fashion, Gaming, Sport Cards.

Spores Network founders deeply believe that a digital “metaverse” is being built today that will revolutionize our thoughts and behavior with respect to living, owning, sharing our physical and digital lives. Crypto enables two exciting and eventual two paths: Decentralization of Ownership, Frictionless Redistribution of Capital.

Spores seeks to empower creators to create, exchange, and communicate their life’s work. Our Core Values are defined as: Creator Centricity, Frictionless, Borderless, Community.

It is now the marriage of NFTs & DeFi for massive applications.

Keywords: Blockchain, collectibles, digital artwork, decentralized finance (DeFi), decentralized NFT finance, gaming, Non-Fungible Token (NFT), smartcontract.



I NFTs: an Exploding Market

I.1 What are NFTs?

Non-Fungible Tokens (NFTs) refer to unique, non-transferable digital assets stored in blockchains. This one-of-a-kind asset is something that cannot be tinkered with but can still be traded as an asset or bought with a cryptocurrency such as Ether (ETH), USD Tether (USDT). Essentially, this makes an NFT a digital certificate of authenticity: The token serves as a unique code irrevocably associated with a digital file, allowing to distinguish the original file from copies floating around on the Internet. This relatively new technology allows for various applications.

NFTs are used to represent ownership of unique items. They let us tokenize things like art, collectibles, even real estate. They can only have one official owner at a time, and they're secured by the Ethereum blockchain – no one can modify the record of ownership or copy/paste a new NFT into existence. NFT stands for non-fungible token. These things are not interchangeable for other items because they have unique properties. Fungible items, on the other hand, can be exchanged because their value defines them rather than their unique properties. For example, ETH or dollars are fungible because 1 ETH / \$1 USD is exchangeable for another 1 ETH / \$1 USD.

Several famous examples of where NFT was used include the [Beeple's image auction sale](#) worth \$69M USD (see Figure 2 also), Twitter founder Jack Dorsey selling [his very first tweet through NFT](#) marketplace Valuables, sports platform [Top Shot](#) - where basketball fans can buy and collect packs of NBA highlights. NFT is also used for investments, with an investor specializing in this technology ranking among Europe's biggest Fintech investors in the seed stage. The NFT world is relatively new. Theoretically, the scope for NFTs is anything that is unique that needs provable ownership. Here are some examples of NFTs that exist today, to help you get the idea. Readers can find extensive knowledge about NFTs on [1, 2]. In the following, we present NFTs based on Ethereum, which may also be similarly applied for other Blockchains (e.g. BSC, Polkadot).

Examples of NFTs

- [A unique digital artwork.](#)
- [A unique sneaker in a limited-run fashion line.](#)
- [An in-game item.](#)
- [A thesis, essay or intellectual property.](#)
- [A digital collectible.](#)
- [A domain name.](#)
- [A ticket that gives you access to an event or a coupon.](#)

What are NFTs used for?

- Digital content
- Gaming items
- Domain names
- Physical items
- Investments and collateral

The characteristics & advantages of NFTs

- **Limited:** The value of NFTs comes from their scarcity. NFT creators can create an unlimited volume of non-fungible tokens; they often modify the underlying digital file to increase interest.
- **Indivisible:** Most NFTs are indivisible into smaller units, impossibility buying a fraction of them.
- **Unique:** NFTs have a strong information tab that explains their uniqueness. This information is fully secured and genuine by blockchain.



Benefits of NFTs

- **Easily Transferable:** NFTs are purchased and sold on special marketplaces, normally via the medium of cryptocurrencies (e.g. ETH, USDT). The use of NFTs depends on their originality.
- **Trustworthy:** Blockchain technology provides the framework for non-fungible tokens. Therefore, you know that your NFT is accurate since it's hard to create counterfeits with a decentralized and permanent record.
- **Maintain Ownership Rights:** This refers to an NFT's worth of decentralized platforms where no purchaser can change the data later.

1.2 How do NFTs work?

<p><i>NFTs have some special properties:</i></p> <ul style="list-style-type: none"> - Each token minted has a unique identifier. - They're not directly interchangeable with other tokens 1:1. For example 1 ETH is exactly the same as another ETH. This isn't the case with NFTs. - Each token has an owner and this information is easily verifiable. - They live on Ethereum and can be bought and sold on any Ethereum-based NFT market. 	<p><i>If you own an NFT:</i></p> <ul style="list-style-type: none"> - You can easily prove you own it. - No one can manipulate it in any way. - You can sell it, and in some cases this will earn the original creator resale royalties. - Or, you can hold it forever, resting comfortably knowing your asset is secured by your wallet on Ethereum. <p><i>And if you create an NFT:</i></p> <ul style="list-style-type: none"> - You can easily prove you're the creator. - You determine the scarcity. - You can earn royalties every time it's sold. - You can sell it on any NFT market or peer-to-peer. - You're not locked into any platform and you don't need anyone to intermediate.
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An NFT internet	The internet today
NFTs are digitally unique, no two NFTs are the same.	A copy of a file, like an .mp3 or .jpg, is the same as the original.
Every NFT must have an owner, and this is of public record and easy for anyone to verify.	Ownership records of digital items are stored on servers controlled by institutions – you must take their word for it.
NFTs are compatible with anything built using Ethereum. An NFT ticket for an event can be traded on every Ethereum marketplace, for an entirely different NFT. You could trade a piece of art for a ticket.	Companies with digital items must build their own infrastructure. For example, an app that issues digital tickets for events would have to build their own ticket exchange.
Content creators can sell their work anywhere and can access a global market.	Creators rely on the infrastructure and distribution of the platforms they use. These are often subject to terms of use and geographical restrictions.
Creators can retain ownership rights over their own work, and claim resale royalties directly.	Platforms, such as music streaming services, retain the major profits from sales.
Items can be used in surprising ways. For example, you can use digital artwork as collateral in a decentralized loan.	



1.3 NFTs booming

The market cap of NFT, or non-fungible tokens, shows a fast-moving development, growing nearly ten-fold between 2018 and 2020. The source of these figures states that coming up with a market capitalization for a market this young is "a tricky exercise" and even mentions this particular estimate is "conservative". The volatile nature of developments in this new market can also be seen in the transaction volume of NFT for various segments as well as the market size of NFT within the same segments: Transactions declined for gaming, whilst value grew for arts. This latter aspect was demonstrated in early 2021, when an NFT digital artwork was sold in an auction for roughly 69 million U.S. dollars - making it the third-most expensive art piece ever sold by a living artist.

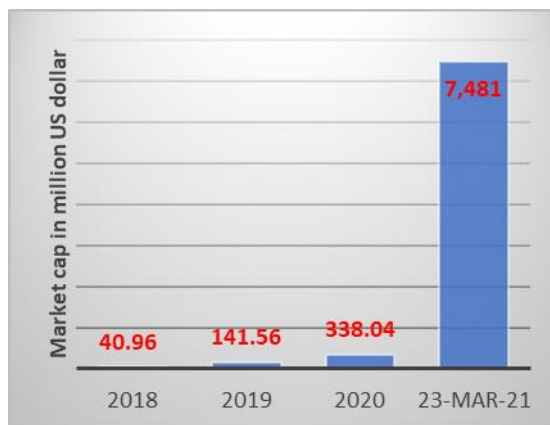


Figure 1. Market cap of NFTs worldwide 2018-2020. By Raynor de Best, Mar 16, 2021. Sourced [Statista](#) and [Coingecko](#).

Top 100 NFT Coins by Market Capitalization

NFT (Non-fungible Token) refers to digital assets with unique characteristics. Examples of NFT include crypto artwork, collectibles, game items, financial products, and more. The NFT tokens market cap for today is \$7,331,249,793.29 with a total trading volume of \$2,326,884,565.24 in the last 24 hours.

\$7,322,619,247 NFT Market Cap	\$2,326,744,729 24H Trading Volume	0.4% NFT Dominance (vs. Global)	27.1% Enjin Coin NFT Dominance
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#	Coin	Price	1h	24h	7d	24h Volume	Market Capitalization
1	Enjin Coin (ENJ)	\$2.11	2.7%	-4.9%	-15.1%	\$984,882,396	\$1,982,101,234
2	Decentraland (MANA)	\$0.849316	3.1%	-4.4%	-20.6%	\$563,380,593	\$1,132,249,885
3	Flow (FLOW)	\$24.78	1.9%	-7.0%	-23.4%	\$51,584,315	\$810,601,056
4	SAND (SAND)	\$0.569148	1.3%	-6.1%	-5.3%	\$195,784,018	\$394,656,403
5	WAX (WAXP)	\$0.233910	9.9%	2.0%	-7.8%	\$68,366,891	\$362,902,791
6	RedFOX Labs (RFOX)	\$0.256569	10.5%	-13.8%	29.1%	\$7,706,247	\$331,783,299

Top NFT projects by marketcap, captured on 25 Mar 2021. Sourced <https://www.coingecko.com/en/nft>

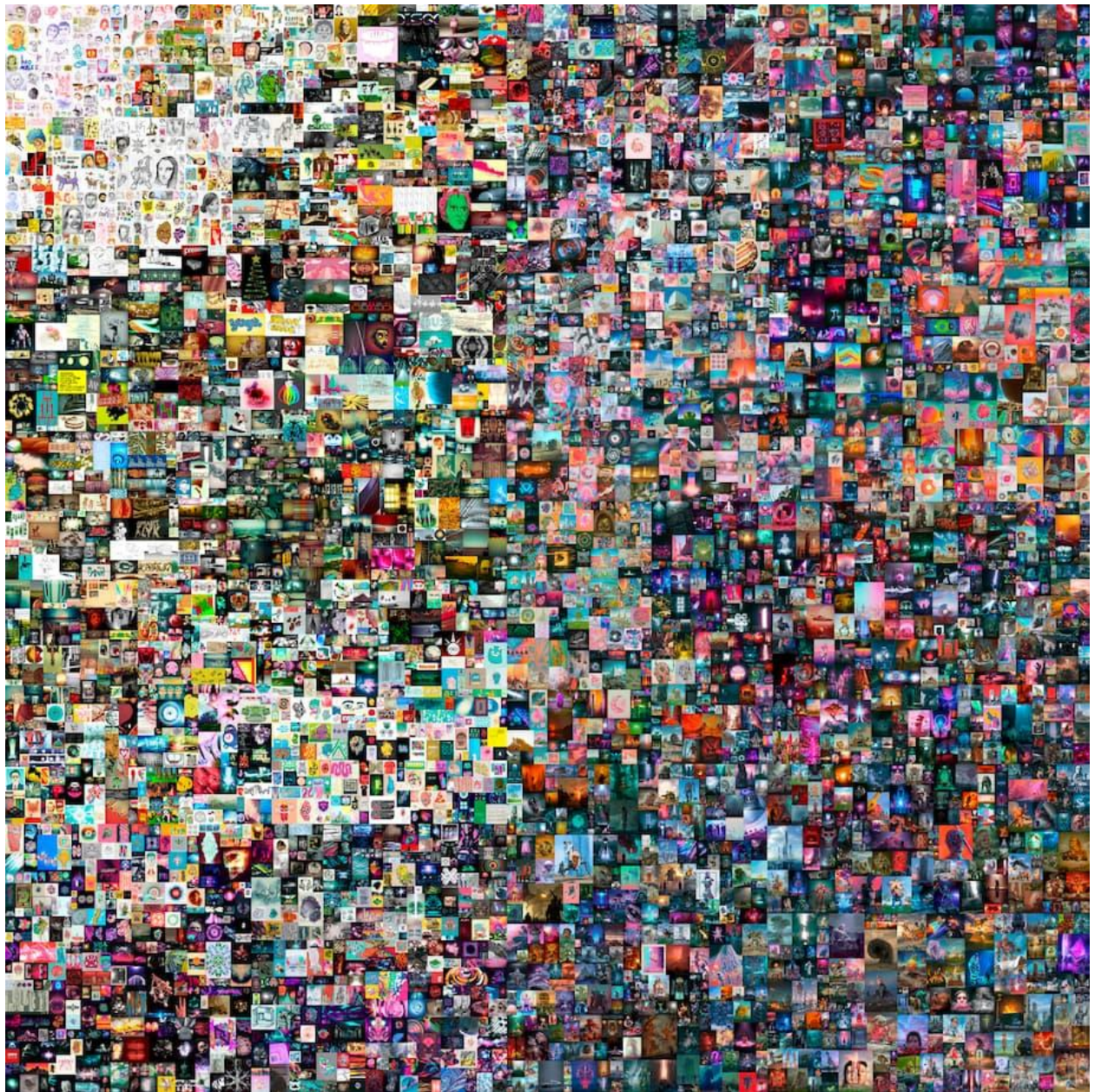


Figure 2. Beeple's image sold for \$69M US dollars



2 The Marriage of NFTs & DeFi

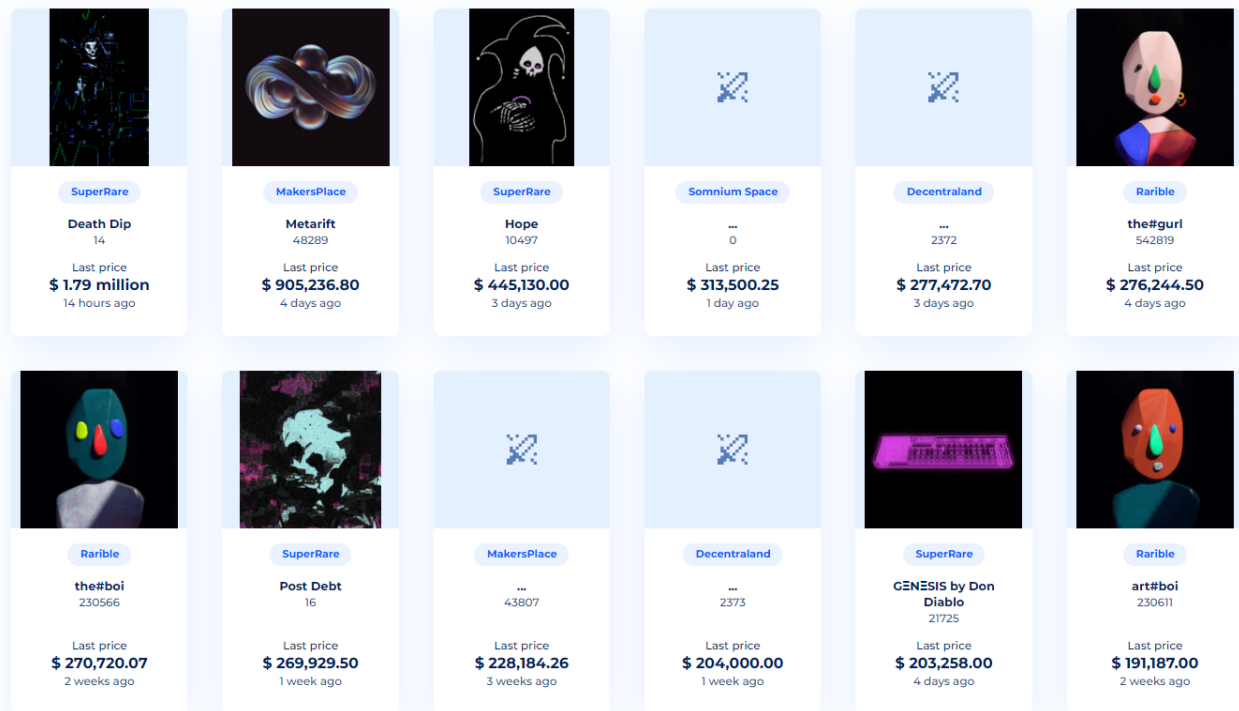
2.1 NFTs for creative industries

Blockchain and NFT technologies enables a borderless and frictionless development era for creative industries, covering digital collectibles, digital contents, various gaming types, fashion, digital artwork, entertainment, sport. In a Bloomberg interview, The CEO of Verisart, Robert Norton explained how he believed that NFTs were a “wake-up call for the creator economy” and that there was a “new generation willing to purchase art as an NFT”. Readers can find more articles about NFTs on [Coinmarketcap](#), [NFTS](#) and [Techcrunch](#). In the following, the [Top 6 NFT Coins by Market Capitalization by Coingecko](#) is presented (or refer to [Opensea](#) also). The NFT market capitalization has achieved incredible all-time-high as \$7.48B US dollars on 23 Mar 2021. According to [Coindeck](#), NFT marketplace [OpenSea](#) raised \$23M USD led by Andreessen Horowitz. Transaction volume on OpenSea has grown incredibly more than 100x over the last six months. [Seascope](#) proposes the concept of DeFi gaming, then being pushed up by a [special partnership](#) with Binance. 11 projects (NIFTEX, Mintbase, NFTX, and more) are exploring the [nexus between NFT & DeFi](#), targeting to make NFT market as flexible and liquid as the rest of the crypto space.

Top NFT tokens

Search by name, dapp or token | Q

Most expensive ▾



Top sold NFTs token by price. Sourced <https://coinranking.com/>

2.2 Limitations of current NFT space

It is undoubtful that NFT is making a disruption in creative & gaming industries, potentially in many other fields in a near future. However, we should point out several challenges to the development and adoption of NFTs at present. To enable the development of NFT applications, there are a number of important barriers which need to be overcome. Several remarks should be liquidation, infrastructure problems, user experience, regulation, bridging the gap between the centralized and decentralized world, see [3].



Centralization vs Decentralization. Mik from Cryptokitties pointed out that the distinction between the online and offline world is increasingly blurred, as more and more people are choosing to spend most of their lives online and, in many cases, in virtual worlds. Whilst this is certainly the case, there is still a huge divide between the decentralized and centralized realms. Many non-crypto-native NFT projects will struggle when it comes to bridging the gap between the relatively self-governed decentralized realm and the centralized realm which is bound by various rules and regulations.

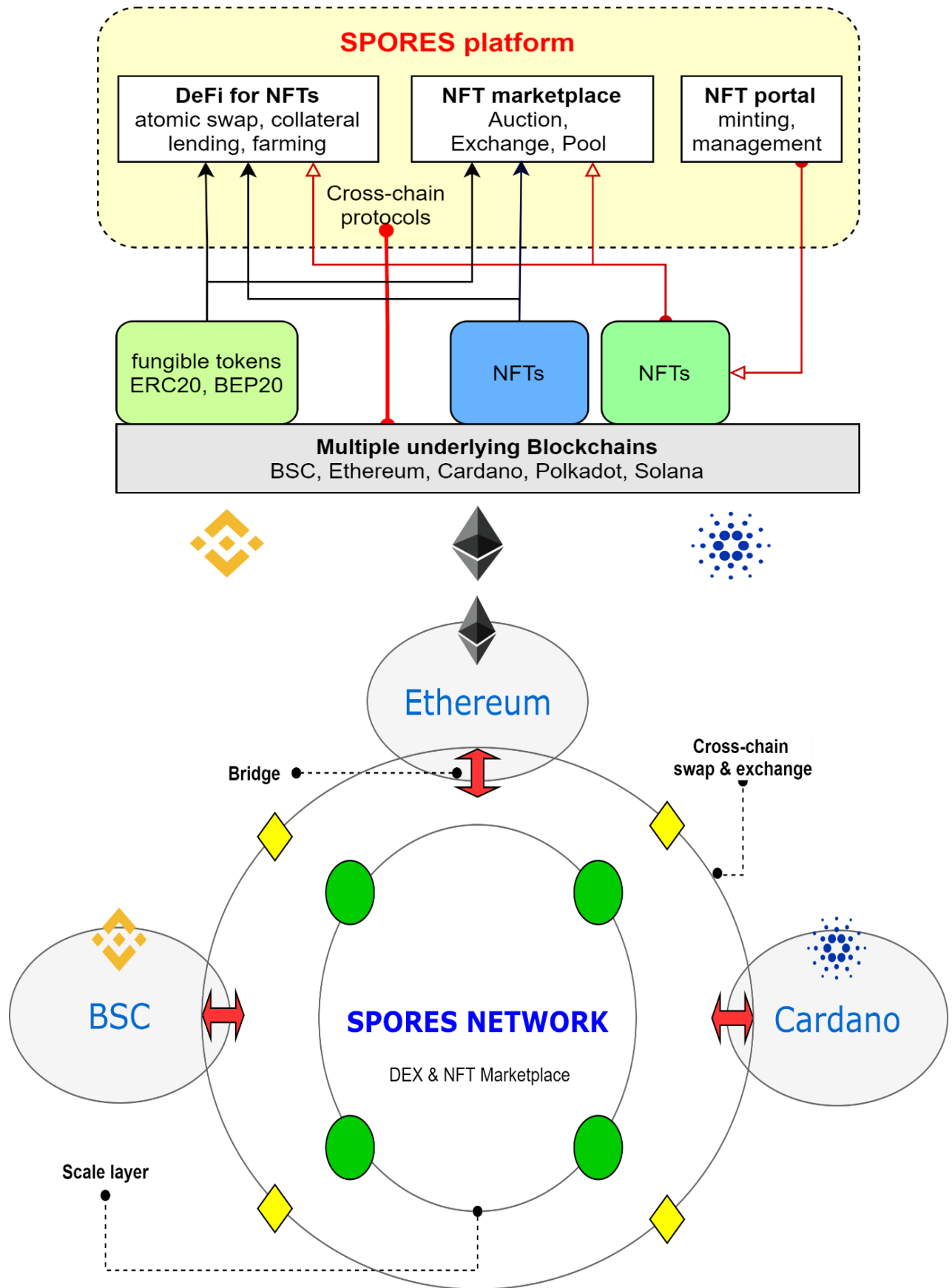
Illiquidity & fragmentation. Unlikely fungible tokens (e.g. ERC-20 types), NFTs have low liquidity due to their scarcity and rarity nature. In addition, NFTs are fragmented on many marketplaces without a seamless connection. Contrasting to rather mature cross-chain wrapping protocols for most crypto assets, NFT owners cannot sell their Ethereum-based NFTs for BEP-20 USDT without an intermediary.

Scalability & transaction fee. The development of NFTs is heavily dependent on underlying blockchain infrastructure. Solving for scalability and transaction fees, for instance, is likely to have a huge impact on the speed of development of this space. Alongside this, the lack of accessibility when it comes to NFTs is a real problem. Lili, Co-Founder at Cryptodecks and designer by trade, discussed this in detail. Particularly for non-crypto natives, interacting with decentralized ecosystems entails a large amount of friction. From having to manage your private keys, to paying several gas fees per transaction and having to set up a new wallet each time, there are so many barriers to entry. Cryptodecks is tackling this problem by providing a simple interface for users to interact with their NFTs.

Shared ownership issue. Whilst many people view NFTs as a way of creating new financial assets and democratizing access to capital, regulation will most likely act as a barrier to this. For instance, Codex might use NFTs as a mean to fractionalize ownership of a piece of art or we could consider fractionalizing ownership of a property. Whilst this is interesting in theory, there is a risk that doing so would turn these tokenized assets into securities and they would, therefore, need to be regulated accordingly.

2.3 How SPORES solves the problems

Spores' ultimate goal is to build a full-stack NFT platform, consisting of an NFT minting portal and a marketplace for trading NFTs, supported by cross-chain interoperable decentralized finance protocols, which is feasible to solve the aforementioned limitations of NFT space. A full-stack decentralized NFT finance platform is in urgent need for both vertical and horizontal application scaleup, as analyzed by Rachel M. [4]. We target bridging the three major blockchains (Ethereum, Cardano, BSC and Polkadot) for frictionless NFT minting and exchanging. Furthermore, Spores marketplace is blockchain-agnostic and friendly for everyone to join. Services offered by popular decentralized finance (DeFi) protocols (e.g. wrapping, atomic swaption, staking & lending) are sophisticatedly integrated on the whole Spores platform to improve NFT liquidity to allow seamless capital access for the new class of crypto assets. DeFi users join Spores' NFT marketplace with gamification of staking, collateral debt positions, farming and more. Simply, one can see Spores as a full combination of an NFT minting platform, a marketplace and a DEX for NFTs. The foundation team of Spores Network believes that the composition and complementation of NFT and DeFi will bring a significant progress for the crypto space, making it more applicable in real world. Readers may find projects proposed the nexus between NFT & DeFi on [5, 6, 7].



Sketching the SPORES NETWORK and platform architecture



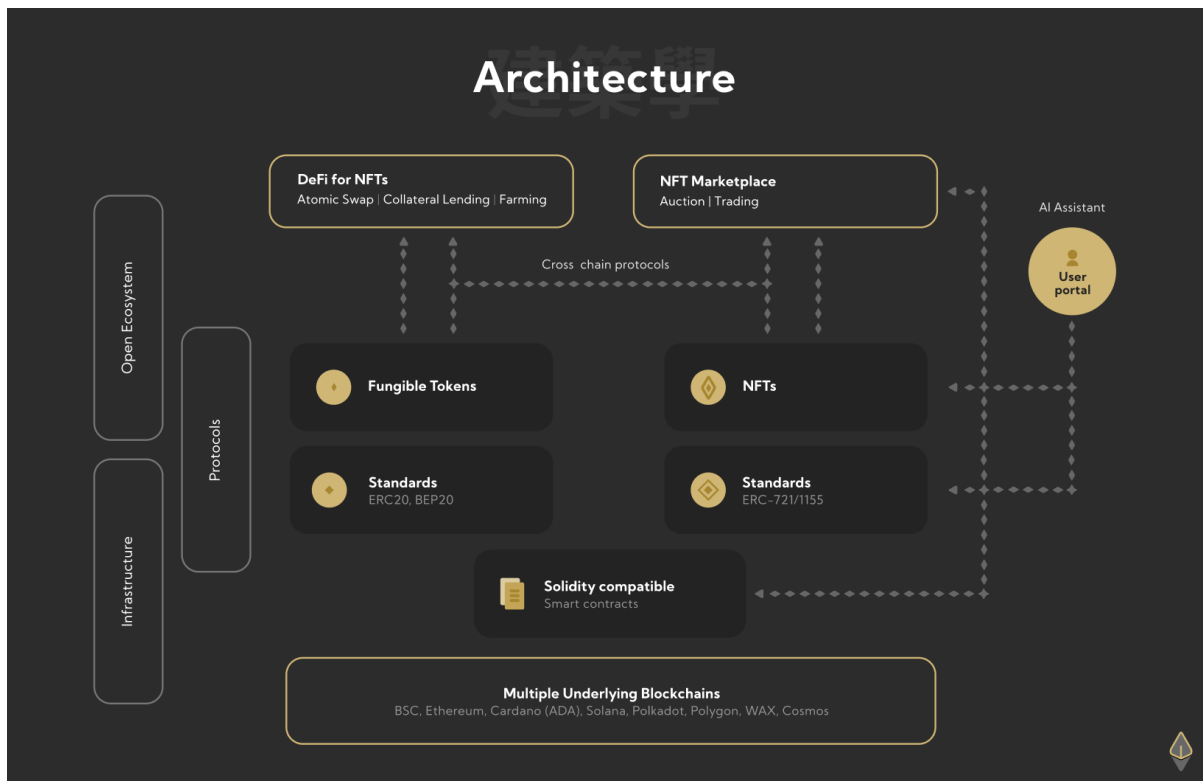
3 SPORES Specializations

Spores Network envisions a universally full-stack NFT platform which is cross-chain interoperable to issue NFTs, to auction and exchange the assets and to utilize other DeFi products without any barrier. Spores takes the advantages of blockchain and smartcontract to authenticate NFTs, track their ownership and buy/sell history, securely decentralize their trading procedure, while fully complying with intellectual property & copyright licenses to protect the NFT creators & owners’ benefits. Spores is equipped with full functioning features to facilitate and benefit all participants (artwork & content creators, game developers, entertainment producers, clubs, collectors, celebrities and fans, etc).

- ✓ NFT minting portal for token creators
- ✓ Account management tools for token holders
- ✓ Auction engine
- ✓ Cross-chain exchange, staking & LP
- ✓ Marketplace and NFT ranking
- ✓ Interoperable DeFi gamification
- ✓ AI assistant for checking and tracking
- ✓ APIs & SDKs for developers

3.1 Spores architecture & technologies

Basically, Spores platform is an open NFT ecosystem built on cross-chain interoperable NFT-DeFi protocols and infrastructure. The platform consists of four major components as followed.



Blockchain-agnostic & DEX design of Spores platform

❖ **NFT marketplace** is the place for auction, sale and exchange of NFTs. The marketplace is facilitated with *cross-chain swap protocol*, *auction engine*. When a transaction (e.g. an NFT auction) is complete, it will be forwarded to the corresponding smartcontracts and their underlying blockchains to settle payment and transfer ownership. An *AI assistant* is employed to check existence and copyright of any new NFT submitted for minting and



auction. It searches over all popular NFT marketplaces, then comparing similarity among items/files on sale to report copycats for enforcement actions.

- ❖ **NFT decentralized exchange** is a cross-chain interoperable DEX allowing NFT holders and DeFi users to trade NFTs for fungible crypto assets across BSC, Ethereum and Polkadot-Substrate. The DEX is supported by decentralized wrapping and cross-chain atomic swap protocols to make transaction seamlessly regardless any underlying blockchain. Moreover, the DEX provides extensive decentralized finance utilities, for instances, staking, NFT-collateral lending, farming, LP & transaction mining. Thus, NFT liquidity is significantly improved while reducing high transaction fee on Ethereum (see Figure 4).
- ❖ **Minting & Management Interface (MMI)** allows game developers, artwork & digital content creators to mint (issue) and manage their NFTs representing their assets/items, NFT holders to play & trade with their collections. The MMI also allows users to connect to the Spores Marketplace for NFT auction and exchange. MMI is blockchain-agnostic, built to be user-friendly as everyone can play on it easily.
- ❖ **Blockchain-smart contract protocols and infrastructure** are built on multiple Solidity-compatible platforms (Ethereum, BSC, Polkadot-Substrate-Moonbeam), utilizing cross-chain interoperable protocols to facilitate seamless and frictionless NFT minting and trading on Spores with lower fee. Most NFTs are built using a consistent standard known as [ERC-721](#). However, the [ERC-1155](#) standard allows for semi-fungible tokens which is particularly useful in the realm of gaming. And more recently, [EIP-2309](#) has been proposed to make minting NFTs much more efficiently. This standard allows mining per transaction. A fungible (ERC-20 type) token reward mechanism is also implemented to incentivize all participants (game developers, artwork & digital content creators, clubs, celebrities, influencers, fans, collectors, sellers & buyers, etc) on Spores Platform.

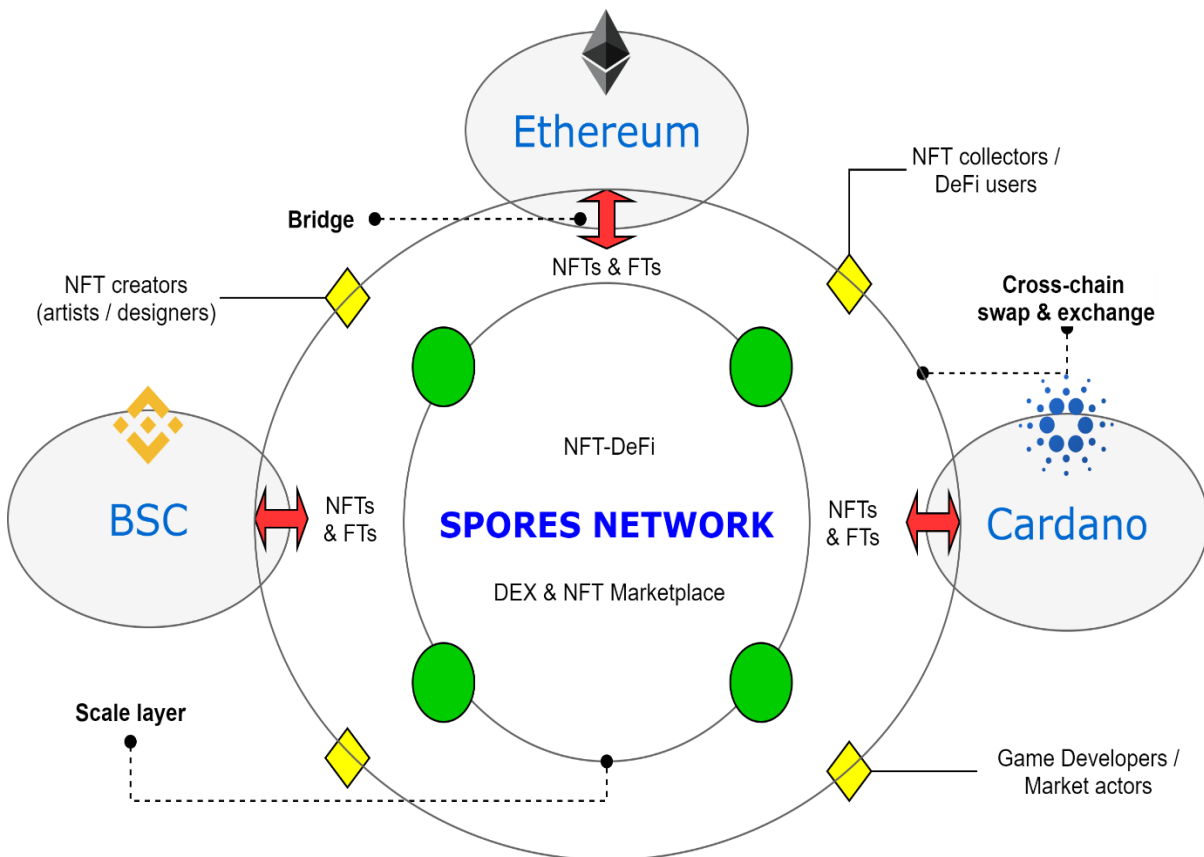


Figure 4. Cross-chain interoperable NFT-DEX model on Spores platform



3.2 How Spores platform works

Without loss of generality, we assume that Bob is a designer who created a game card, Alice is a collector, then describing the most basic workflow on Spores platform. Bob'd like to sell that (digital) card and Alice wants to buy it. We will describe in detail how Bob and Alice utilize Spores platform to complete the transaction.

Collectors / Owners

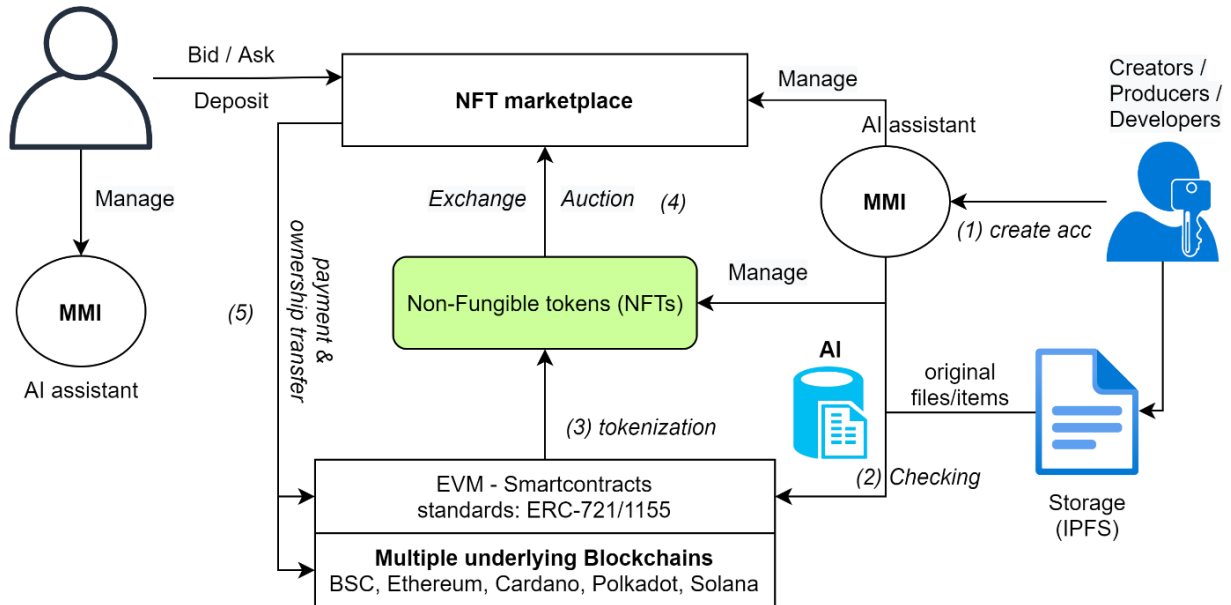


Figure 3. Basic workflow on Spores platform

❖ **Initialization.**

- ✓ *Account registration.* Bob creates an account as a creator on Spores platform via Issuance & Management Interface (IMI). Then Bob is provided a public address on a blockchain associated with a private key. Bob's account is secured by an ECDSA technique which cannot be hacked. Now, he may proceed to issue any NFT representing ownership over his own digital artworks.
- ✓ *Copyright checking.* Firstly, he must upload the card file for checking. The AI assistant will search for existence and measure similarity of the likes throughout popular NFT marketplaces. If the similarity index is greater than a predefined threshold, then the AI tool will report copycats. Otherwise, Bob can proceed to next steps. This checking is to ensure originality of the work, hence protecting copyright and intellectual property compliance.
- ✓ *File storage.* The card file will be uploaded to a cloud storage platform. Typically, Spores uses IPFS protocols (e.g. Storj, Filecoin, Bittorrent) to host the file.

❖ **Tokenization.**

- ✓ *Deploying contract.* After passing the check, Bob can choose and set parameters to issue one or many NFTs identifying his card. This action is easy as the template has user-friendly design such that everyone can go without coding skill. Popular contract standards are ERC-721/1155 and EIP-2309 which fit different needs of the creator.
- ✓ *NFT storage.* After the deploying contract is triggered¹, the NFT is now a record on the underlying blockchain, which identifies the digital file and its ownership. Only the private key holder has the right and control over the NFT. Bob can hold it, transfer the ownership to others, auction for money or exchange for other cards.

¹ The creator may need to pay a gas fee for triggering the contract.



- ❖ **Auction (exchange)** on Spores marketplace.
 - ✓ *Posting.* Bob posts his NFT for an auction on Spores marketplace. The auction may be powered by a smartcontract.
 - ✓ *Bid ordering.* Collectors will join the marketplace to search posted auctions, find what they want and then place bid orders on active auction sections. A certain fund deposit on a smartcontract is required to place bid orders.
 - ✓ *Execution.* During an auction section, all bid orders are recorded. The top winners are selected, according to predefined rules, when the auction ends. Then, the marketplace will forward the winner list to corresponding smartcontracts and their underlying chains for settlement and ownership transfer.
- ❖ **Settlement and ownership transfer.**
 - ✓ A period of time is given for the top winner to make full payment associated with the winning bid order. If the winner cannot pay within the locking time, he will lose the deposit and the right is moved to the second winner, so on until the end of the winner list.
 - ✓ When the payment is settled in full, the NFT ownership is simultaneously transferred to the payer.
 - ✓ A fee is applied for a successful transaction (e.g. auction).

If the auction is replaced by an exchange for another card or crypto asset, the procedure is much simpler. Two parties should agree on an atomic swap contract, then payment and ownership transfer are executed accordingly without any bid order or deposit. A fee is applied for any type of transaction.

3.3 Spores usecases and benefits

Although NFTs have a wide range of applications in many disciplines, we focus on creative industries as the most priority.

- ❖ **Gaming:** The gaming industry and non-fungible tokens are a perfect match. Imagine being able to check a detailed history of the magic shield or sword you have just bought. NFTs can provide a proof of ownership for every item within blockchain-supported games.
 - *Virtual Real Estate is Booming* “Let’s go to Decentraland” is a phrase you might hear in the not-so-distant future. Virtual real estate represents a real potential for investors. Like URL domain grabs of the early Dot Com era, digital land grabs are going for millions. Since its opening to wider audiences in February 2020, Decentraland sold \$1 million in virtual land. In Axie Infinity, a crypto-Tamagotchi virtual ecosystem, a community member purchased nine digital plots of land as one parcel for 888.25 Ether. At the time, 888.25 Ether was worth \$1.5 million.
 - NFTs are popular in the gaming industry since these tokens solve some of their internal difficulties. For example, popular games today such as PUBG and Fortnite ban the purchase of rare features and items such as weapons. With NFTs, these items can easily be transferred and used.
- ❖ **Digital Artworks:** Blockchain provides provenance, which is proof of ownership and origin of the art pieces. Digital artists find it increasingly difficult to copyright of their artwork. The use of NFTs can enable one to buy a work of art and showcase it within a digital space, being fully aware of the history of the asset, such as artist name, date of creation, list of other owners, and value of the asset throughout its lifecycle. It will also allow the artists to get better payment for their work through the elimination of brokers by initiating P2P payments. After reviewing it all, we can claim that the non-fungible



tokens are creating a strong foundation for blockchain and crypto adoption, with a broad spectrum of use cases aiding industries to save money on counterfeit products, copyright issues, while helping people safeguard their data and privacy.

- ❖ **Digital Collectibles:** NFTs has brought a new character to the collectible world. Traditional professionals are now onto digital assets. The use cases of NFTs are developing. A few days back, Jehan Chu, founder of blockchain investment firm Kenetic, divided over \$84,000 for 680,000 Handshake (HNS) NFTs, allowing the bearer to issue .NFT web domain extensions via the Handshake blockchain. Chu called NFTs the “true lacking link between online and offline things” and stated his hope that they could convert business, finance, society, and culture. As well as being rare, NFTs help from clarity thanks to their recording on a public ledger, adding a layer of security to collectible assets that people appear to be attracted to.
- ❖ **Entertainment:** Tickets to music concerts or football games are usually unique and interchangeable. They give us permission to see an event or activity. Due to those aspects, the ticketing space could have huge benefits employing NFTs on the blockchain.
- ❖ **Sport:** The sports industry suffers a lot due to counterfeit merchandise and tickets, which blockchain can help in eliminating. The immutability of blockchain prevents counterfeit collectibles and tickets, with the help of tokenized game tickets getting issued on the blockchain network. This is a great use case for non-fungible tokens. Each game ticket might be similar, but each will hold unique identifiable information connecting it with the designated owner on the blockchain. Sports NFTs have gained recent popularity with prominent athletes becoming tokenized assets on the blockchain, and their value getting determined by how they perform. There is ongoing work on turning merchandise into NFTs allowing the owner to register and verify the official merchandise as theirs.



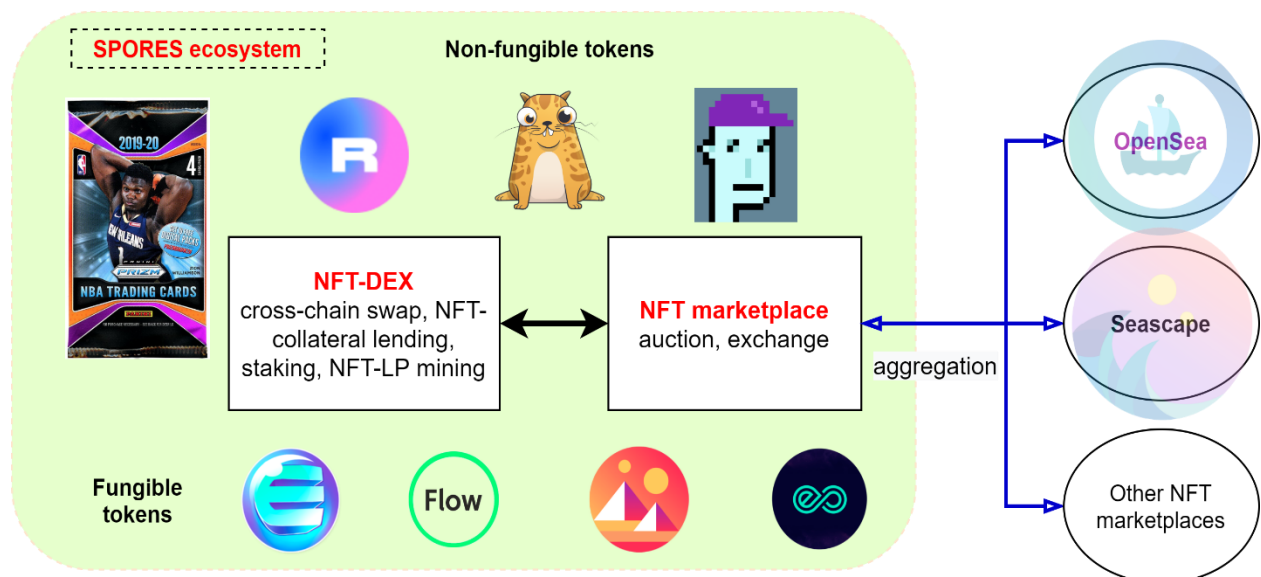


Benefits for NFT creators and users on Spores platform

<p>If you create an NFT via Spores platform:</p> <ul style="list-style-type: none"> - You can easily prove you're the creator. The authentic proof is distributed on blockchain which is immutable and stored permanently. - You determine the scarcity. - You can earn royalties every time it's sold on Spores marketplace. - You can sell it on any (other) NFT marketplace or peer-to-peer. - You're not locked into any platform and you don't need anyone to intermediate. 	<p>For NFT owners and DeFi traders:</p> <ul style="list-style-type: none"> - You can easily prove you own an NFT. - No one can manipulate it in any way. - You can sell it on Spores marketplace, and you may earn the original creator resale royalties. - You can enjoy DeFi gamification on Spores's DEX with staking, collateral lending, farming and more, regardless any underlying blockchain.
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3.4 Spores' NFT-DeFi model: a deeper look

Spores Network discovers the extensive nexus between NFTs and DeFi markets. It is necessary to show readers a deeper look at Spores's NFT-DeFi model, which basically combines NFT marketplace and DEX. Spores targets to erase the barriers and frictions caused by blockchain technical issues, then help artists, designers, game developers efficiently monetize their works via DeFi space. Besides, Spores facilitates DeFi traders with financial gamification on the NFTs space, then helps them enjoying and earning from collectibles, game items, digital cards & contents. Spore's DEX is specialized for NFTs market, roughly speaking, to provide the most optimized liquidity and financialization for all NFTs in accordance with the native governance/utility tokens of NFT platforms. Spores builds a marketplace with efficient fee (supported by a layer-2 scale solution) which seems now the biggest pain-point² of NFT market.



3.5 Spores differentiations

The NFT market is booming with multiple players out there. Among the top competitors of Spores in the NFT world, we are going to capture fundamentals and comparisons as

² One may lose hundred dollars to mint and sell a single NFT.



followed. It is worth to note that Spores Network builds a full-stack decentralized NFT finance platform which gamifies DeFi users and collectors to enjoy NFT space and facilitates developers and creators in the creative industries to monetize easier from their works.

Projects		Enjin	OpenSea	OnFlow	Seascope	Spores
Description		Social gaming platform	Full-stack marketplace	Blockchain for gaming & NFTs	Gaming ecosystem	Interoperable full-stack DeFi-NFT platform
Blockchain		Ethereum	Ethereum	Flow	Ethereum BSC Polkadot	Ethereum, BSC Cardano, WAX Polkadot, Polygon
NFTs	Applications	Gaming	Various	Various	Gaming	Various
	Staking/Lending	X	NA	NA	✓	✓
	Burn/Shares	✓	NA	✓	✓	✓
	Royalty	X	NA	NA	NA	✓
DeFi (DEX)	Backing	✓	NA	NA	NA	✓
	LP mining	X	NA	NA	✓	✓
	Staking/Lending	X	NA	NA	✓	✓
	Profit share	X	NA	NA	✓	✓
Dev Tools	Interoperability	X	NA	NA	X	✓
	SDKs	NA	✓	NA	✓	✓
	Whitelabel	NA	✓	NA	NA	✓
	Cross-chain bridge protocols	X	X	NA	✓ Centralized	✓ Decentralized



4 Tokenomics and Fee Policy

4.1 Spores' native token

The native digital cryptographically-secured fungible (i.e. ERC20 / BEP20) token of the Spores platform (ticker symbol SPO) is a transferable representation of attributed governance and utility functions specified in the protocol/code of the Spores platform, and which is designed to be used solely as an interoperable utility token on the platform. SPO is designed to be NFT-creator-centric and DeFi-community-driven, and to incentivize all contributors and participants across the whole Spores ecosystem.

As the economic incentive for network participation SPO token incentives will be distributed to incentivise users to participate in community governance, reward contributors on the platform and other utility purposes including platform fees discount.

Community incentives (NFT minting, trading, LP mining and other DeFi rewards):

- Reward for NFT creators for each newly minted NFT on Spores platform.
- Reward for buyers and sellers per confirmed transaction (auction, exchange, etc).
- Reward for LPs to provide liquidity on the platform supporting transactions related to SPO.

4.2 Token usage

SPO would allow holders to propose and vote on on-chain governance proposals to determine future features and/or parameters of the Spores platform, with voting weight calculated in proportion to the tokens staked (the right to vote is restricted solely to voting on features of the Spores platform; it does not entitle SPO holders to vote on the operation and management of the Company, its affiliates, or their assets or the disposition of such assets to token holders, and does not constitute any equity interest in any of these entities or any collective investment scheme, and the arrangement is not intended to be any form of joint venture or partnership).

As the base platform currency, SPO may be utilised to participate in a variety of interactions with integrated third party DeFi protocols (e.g. LP mining, staking, usage as collateral lending), to engage with these protocols and receive incentives for such engagement.

Usage of SPO for payment of platform fees would entitle a user to discounted fees. SPO may also be acquired to pay for periodic subscription plans relating to NFTs (e.g. Elite Club subscriptions to receive exclusive NFT airdrops, collectible rewards and presale access to exclusive NFT drops).

- NFT-DeFi incentives
- NFT club subscription
- Governance & Voting



Mining SPO tokens.

Users can earn SPO tokens by performing beneficial activities such as minting NFTs, staking SPO token, providing liquidity on Spores platform, LP mining on other DEXs (e.g. Pancakeswap, Uniswap) and many more incentives.



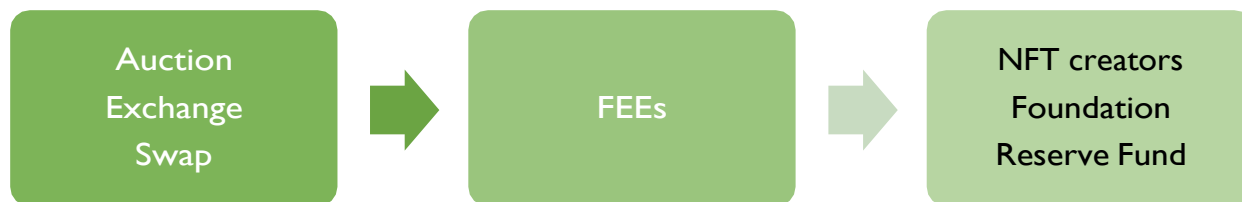
In particular, it is highlighted that SPO: (a) does not have any tangible or physical manifestation, and does not have any intrinsic value (nor does any person make any representation or give any commitment as to its value); (b) is non-refundable and cannot be exchanged for cash (or its equivalent value in any other digital asset) or any payment obligation by the Company, the Distributor or any of their respective affiliates; (c) does not represent or confer on the token holder any right of any form with respect to the Company, the Distributor (or any of their respective affiliates), or its revenues or assets, including without limitation any right to receive future dividends, revenue, shares, ownership right or stake, share or security, any voting, distribution, redemption, liquidation, proprietary (including all forms of intellectual property or licence rights), right to receive accounts, financial statements or other financial data, the right to requisition or participate in shareholder meetings, the right to nominate a director, or other financial or legal rights or equivalent rights, or intellectual property rights or any other form of participation in or relating to the Spores platform, the Company, the Distributor and/or their service providers; (d) is not intended to represent any rights under a contract for differences or under any other contract the purpose or pretended purpose of which is to secure a profit or avoid a loss; (e) is not intended to be a representation of money (including electronic money), security, commodity, bond, debt instrument, unit in a collective investment scheme or any other kind of financial instrument or investment; (f) is not a loan to the Company, the Distributor or any of their respective affiliates, is not intended to represent a debt owed by the Company, the Distributor or any of their respective affiliates, and there is no expectation of profit; and (g) does not provide the token holder with any ownership or other interest in the Company, the Distributor or any of their respective affiliates.

Notwithstanding the SPO distribution, users have no economic or legal right over or beneficial interest in the assets of the Company, the Distributor, or any of their affiliates after the token distribution. To the extent a secondary market or exchange for trading SPO does develop, it would be run and operated wholly independently of the Company, the Distributor, the distribution of SPO and the Spores platform. Neither the Company nor the Distributor will create such secondary markets nor will either entity act as an exchange for SPO.



4.3 Fee policy

Transaction fee is applied for any executed transaction (e.g. auction, exchange, swap), varying on many transaction types. These fees will be held in the Foundation Reserve Fund / community reserve, and then distributed to all platform contributors proportionate to their work performed, e.g. NFT creators, development proposals and work, or to incentivise platform engagement.



5 Tentative 3-year Roadmap

Timeline		Progress
2021	Q1	<ul style="list-style-type: none"> - Whitepaper - 3-year development plan
	Q2	<ul style="list-style-type: none"> - Contract systems for ERC-721 and ERC-20 - Internal testing NFT marketplace
	Q3	<ul style="list-style-type: none"> - Launch NFT marketplace - LP staking and farming - ERC-1155 implementation - Testing contract systems on Cardano - Polygon/Matic layer-2 solution - Integrating Binance Smart Chain (BSC) Ecosystem - Crypto & Credit card payment
	Q4	<ul style="list-style-type: none"> - Integrating Cardano Ecosystem - DeFi gamifying experiment - Connecting WAX gaming ecosystem - Multi-currency payment (cryptos & fiats) - Piloting smartcontract solution for NFT payment on Bitcoin
2022	H1	<ul style="list-style-type: none"> - NFT-DeFi solutions on Cardano - DeFi gamification release - Expanding to Solana, Polkadot - Integrating cross-chain NFT solutions
	H2	<ul style="list-style-type: none"> - AI assistant & check - Expanding to Avalanche, Tron - Lending for NFTs
2023	H1	<ul style="list-style-type: none"> - Cross-chain atomic swap for NFTs - Cross-chain payment solution
	H2	<ul style="list-style-type: none"> - SDK/Whitelabel to build NFT storefronts on Spores - NFT solution for tangible assets



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