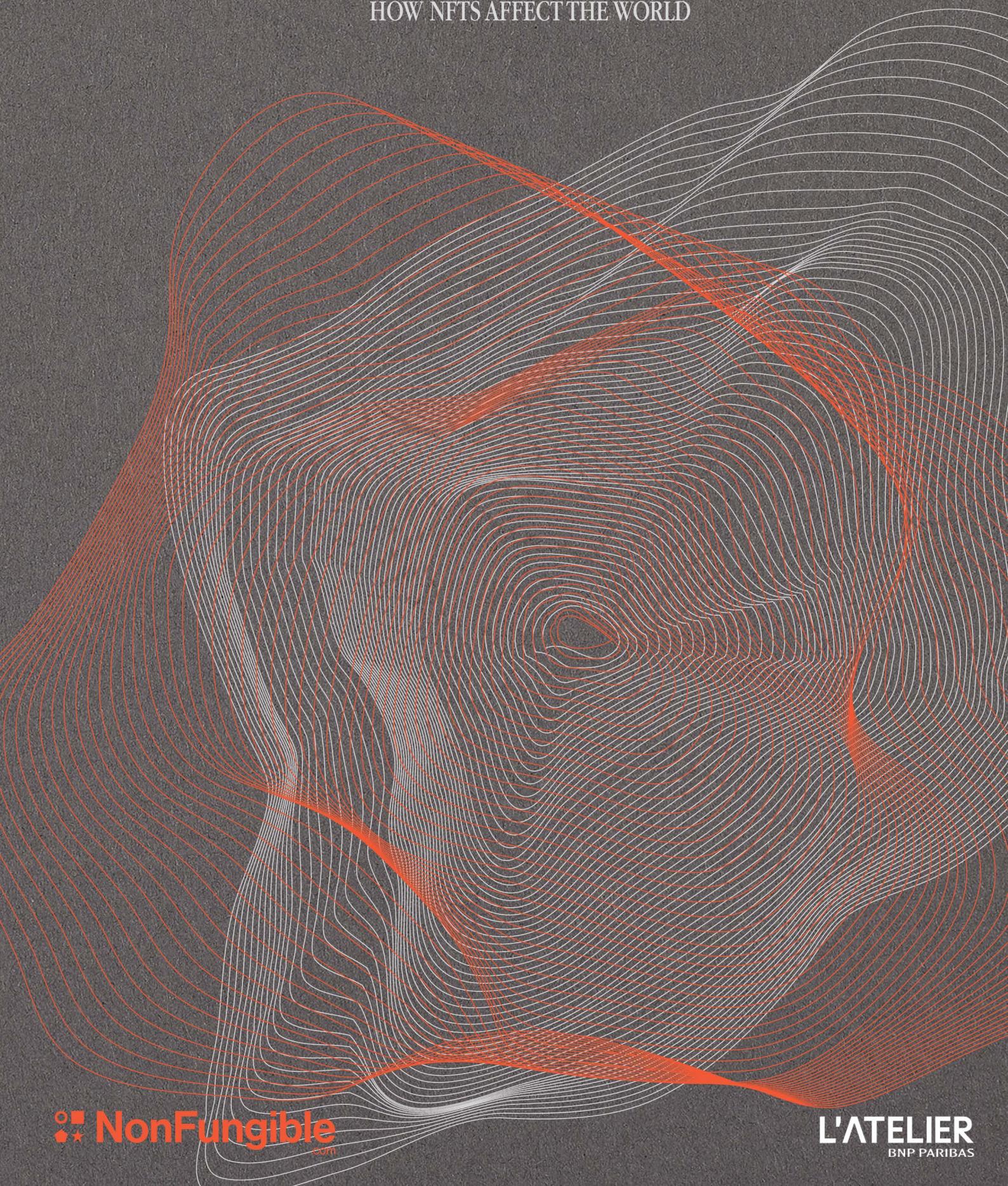


# Yearly NFT Market Report 2021

HOW NFTS AFFECT THE WORLD







# Foreword

## **NFT: word of the year 2021.**

'NFT' was chosen Collins Dictionary's word of the year for 2021. Not bad for a term which, just 12 months ago, was only used by a handful of enthusiasts across the world.

Which other technology in history can boast the creation of a market exceeding 10 billion dollars in less than 4 years? Let's be real, what we are seeing now is quite simply history in the making.

Who could have predicted the arrival of this media, financial and social groundswell that has caused the NFT industry to explode in under a year? You might remember, in January 2021, there was some vague talk of a blockchain game that didn't work too badly: NBA Top Shot. Two months later, an artist sold the third most expensive work of art of all time for 69 million dollars. From that moment, the frenzy began and not a week went by without some sensational news related to NFTs.

It's difficult now to have a clear overall picture of the ecosystem. Where are we at? Are NFTs a bubble? What are the trending use cases? How big is the market?

## **How do we approach this report?**

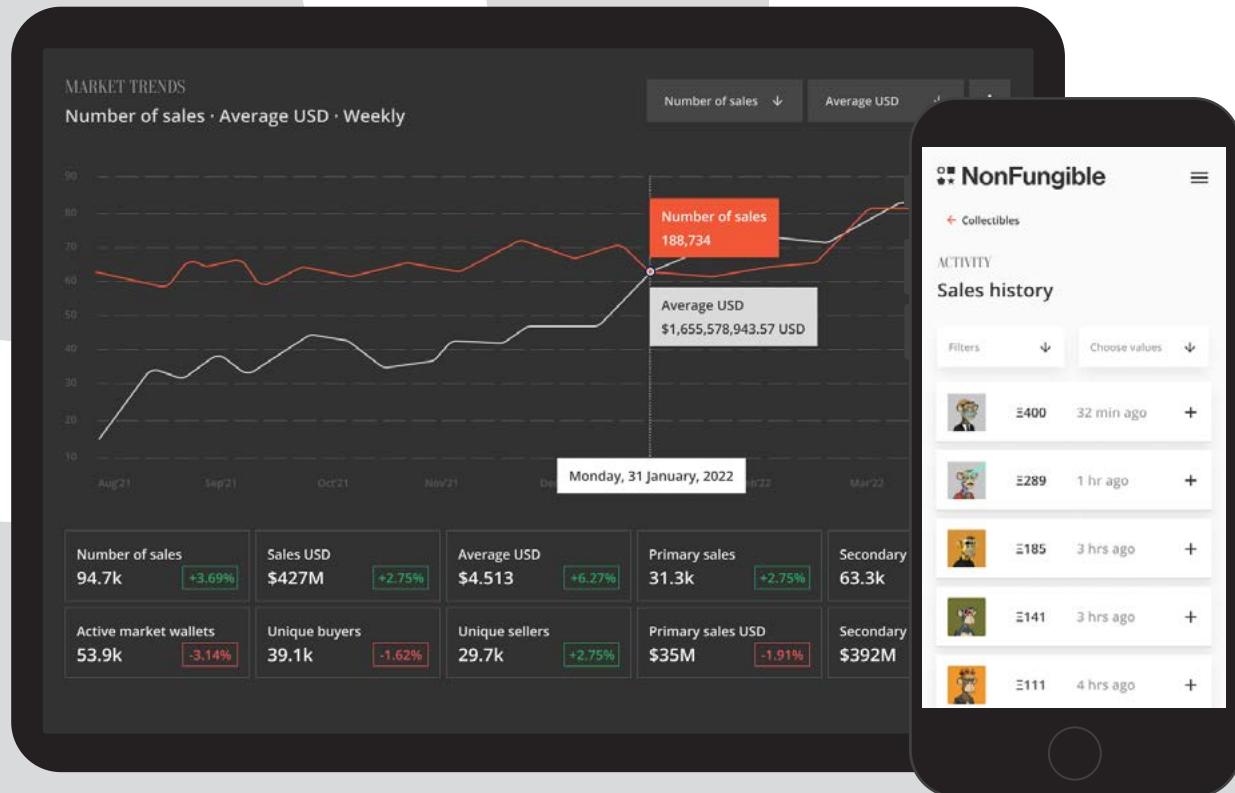
This new edition of the NonFungible.com yearly report has been designed to enable every reader to navigate around this booming industry. Our team has worked closely with multiple stakeholders both within and outside the NFT ecosystem, to offer you the most comprehensive and objective picture of the industry that is growing at the fastest rate in the history of technology.

We invite you to use this report as a global information source on NFTs. There's no need to read the 200 or so pages of this report in order, so we recommend you browse through the sections relating to your concerns and needs without feeling you have to take in every word from start to finish.

THE NONFUNGIBLE TEAM



The World's Largest NFT Data Resource



Helping you navigate the NFT industry smoothly and make the right decisions at the right time has been our mission for the last 4 years

Whether you are an NFT project owner, a digital creator, a major NFT collector or a financial group, or if you just want to get a better understanding of the NFT industry before you start out, we will help and support you in your project.

The NonFungible team have already assisted dozens of companies and investors in their NFT strategy, from due diligence to market analysis via portfolio valuation.

**Find out more about all of our services on our website!**

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# Thank you all

## Thank you all

We published our first edition of the 'NFT Yearly Report' at the start of 2019 to analyse the trends in 2018 and great progress has been made since that first edition.

Last year, we took up the challenge to offer you a comprehensive picture of the industry, its stakeholders and its market and to say that this new format was warmly received would be an understatement! This year, we have decided to go even further and hope you'll like what we've done.

Through this report, we would like to thank everyone who has supported us since our beginnings in 2018 and everyone who has crossed our path since and believed in our ability to produce a report with this level of demand and quality: L'Atelier BNP Paribas, Ubisoft, the collectors whose portfolios we have assessed this year, all our partners, customers, readers and our daily users.

This report is yours, created thanks to you and for you, thank you so much for all your contributions from the start.

## A particular thank you to our partner, for another year!



This report would not have been complete without the invaluable support of our partner L'Atelier BNP Paribas. L'Atelier BNP Paribas is a foresight business focused on identifying opportunities and challenges emerging at the intersection of social and technological change. The virtual economy has been a key area of focus in their research for some time. You can see more of their work at [www.atelier.net/projects](http://www.atelier.net/projects)

Always on the lookout for emerging trends and innovative projects, their guidance with the design of this report, from structure to analysis has been invaluable.

**It is an honour for us to have published this new edition of our NFT Yearly Report in partnership with them.**

# A special thank you to our sponsors



## The Sandbox

The Sandbox is a virtual world where players can build, own, and monetize their gaming experiences in the Ethereum blockchain using SAND, the platform's utility token. Our vision is to offer a deeply immersive metaverse in which players will create virtual worlds and games collaboratively and without central authority.



## Decentraland

Decentraland is a virtual reality platform powered by the Ethereum blockchain. Unlike other virtual worlds and social networks, Decentraland is not controlled by a centralized organization. Users can create, experience, and monetize content and applications. There is no single agent with the power to modify the rules of the software, contents of land, tokenomics, or prevent others from accessing the world.



## PlayDapp

PlayDapp's vision is to create a world where digital assets are more valuable and accessible to everyone. Gamers will not only be able to take true ownership of their ingame assets, but will also be able to earn rewards for participation. PlayDapp is a dApp game portal that provides C2C Marketplace. All PlayDapp games are interoperable, providing a portfolio of game content that gamers can enjoy with their NFTs.



## Animoca Brands

Animoca Brands is a leader in digital entertainment, blockchain, and gamification. Animoca Brands develops and publishes a broad portfolio of products including the REVV and SAND tokens; original games including The Sandbox, Crazy Kings, and Crazy Defense Heroes. Animoca Brands' portfolio of blockchain investments and partnerships includes Sky Mavis, Dapper Labs, Open-Sea, Harmony, Bitski, and Alien Worlds.



## Pinata

Pinata is the first multimedia management hub for creators, developers, and artists in the Web3 space. Created in 2018, Pinata provides users the easiest way to upload, manage and store their content through the interplanetary file system (IPFS) with power and speed. Our vision is to foster a sense of place for every creator on the Internet that is uniquely theirs.

# Thank you to our interviewees

We have conducted more than a dozen interviews with experts from a wide background, some already very active in the NFT industry and others casting a fresh eye on this flourishing ecosystem.

This report would not have been the same without the comparative views, shared experiences and critical thinking of all those involved. Artists, investors, pioneers, project founders, each one of them is an artisan of the NFT ecosystem in their own way and involved in building it day after day.

Despite a full workload, they all agreed to participate in this report, providing accounts of and sharing their expertise.

A huge thank you to each and every one of you!



**Sébastien Borget**  
The Sandbox co-founder



**Shari Glazer**  
Art collector and NFT enthusiast



**Michael Bouhana**  
Co-Head of Digital Art Sales, Sotheby's



**Fanny Lakoubay**  
Crypto art advisor



**Pascal Boyart**  
Digital artist



**Aleksander Larsen**  
Axie Infinity co-founder



**Benoit Couty**  
MOCA founder  
(Museum of Crypto Art)



**Sebastian Pozzo**  
E-sport blockchain  
Professional Axie Infinity player



**Sang Chung**  
PlayDapp COO



**TokenAngels**  
NFT collector



**Gabby Dizon**  
Yield Guild Game founder



**TJ Kawamura**  
Republic Realm co-founder



**John Egan**  
L'Atelier BNP Paribas CEO



**WhaleShark**  
Community founder  
Whale NFT collector



**Daniel Garcia**  
Polygonal Mind founder  
Metaverse 3D designer

SPONSORED CONTENT

# THE VIRTUAL ECONOMY

L'Atelier BNP Paribas is a quantitative forecasting company.

We discover the future markets emerging  
from technological and societal changes.

We believe that NFTs will help bridge the gap between  
the physical and virtual economy.

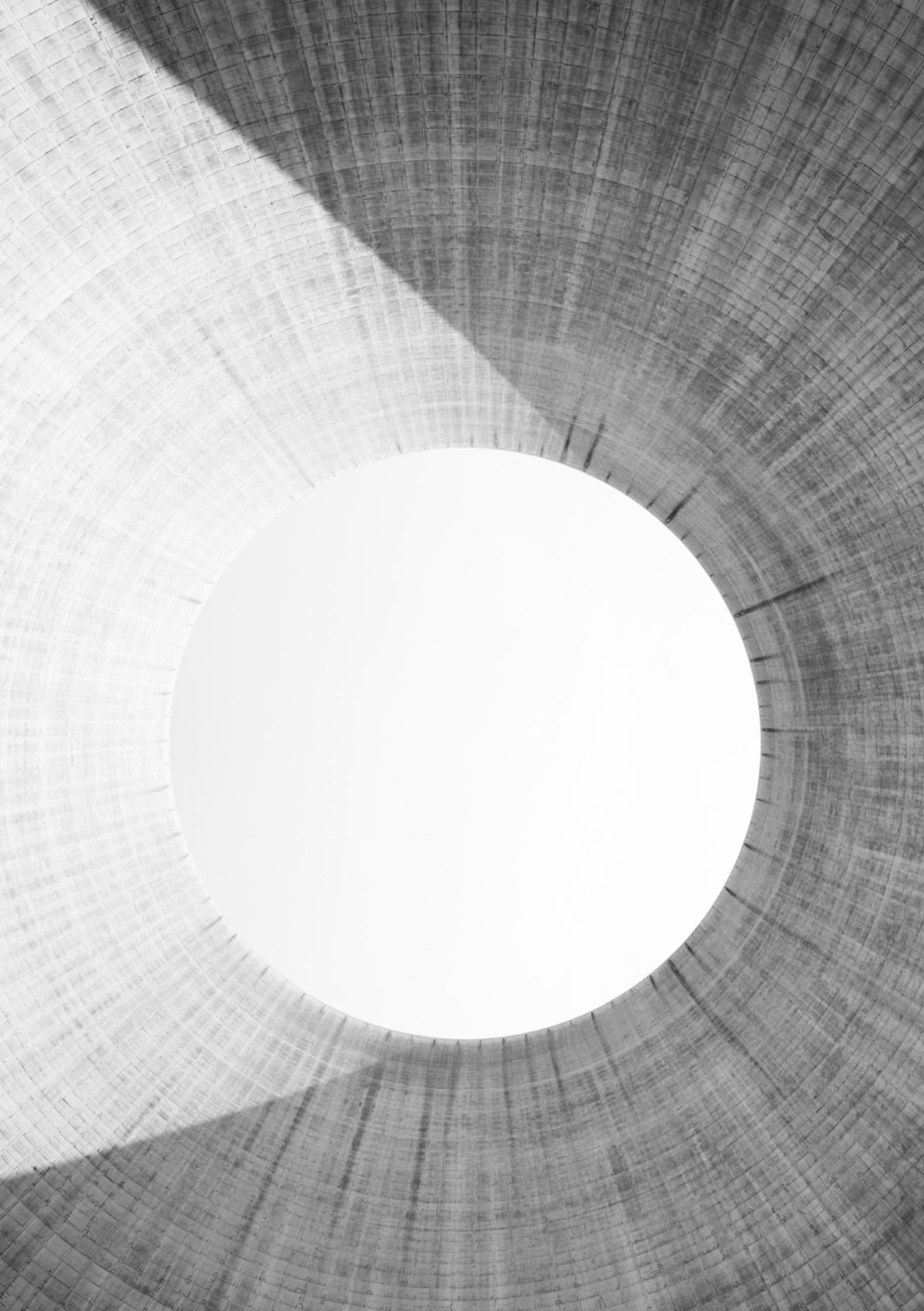
Read about our deep dive into the virtual economy here



To keep track of our future projects, follow us  
on Twitter and LinkedIn.

# Contents

1	The basics.....	13
2	The report in 5 minutes.....	23
3	A look back at 2021.....	27
4	Overall performance .....	33
5	Performance in detail .....	39
6	Who is buying NFTs?.....	53
7	Who is collecting NFTs? .....	67
8	Valuing and buying your first NFTs.....	79
9	How to sell NFTs.....	87
10	The profit generated on the NFT market.....	91
11	Focus: Art.....	103
12	Focus: Collectibles.....	115
13	Focus: Video Games.....	123
14	Focus: Metaverses .....	133
15	Focus: Utilities and Finance .....	143
16	The new jobs .....	153
17	The next major challenges .....	167
18	Our predictions for 2022.....	173
19	General conclusions.....	177



# The Fundamentals

# What are NFTs?

To answer this question, it's important to know the definition of 'fungible' in order to understand its antonym. There are several nuances of fungibility depending on usage.

## Fungible Tokens

This is the Larousse definition of 'fungible':

"Refers to things that are consumed by usage and can be replaced by things of the same kind, the same quality and the same quantity"

It is important to remember two points in this definition:

- Things that can be replaced by other things of the same kind. For example, two one euro coins dating from 2015.
- And usage. This is the most important but also the most vague concept.

In the blockchain ecosystem, \$SAND tokens are fungible. They will always have the same value if they are exchanged with each other. They can be spent to purchase \$LANDs which are nonfungible.

## Non-fungible Tokens

A Non-Fungible Token is NOT fungible. It is a token that represents a unique asset with characteristics that are particular to it: it cannot be interchanged or replaced by another equivalent token.

NFTs can take the form of a digital work, a virtual land, a domain name or even equipment in a video game.

NFTs are simply a technological medium that allows any digital item to be stored and circulated virtually on a blockchain. To some extent 'NFTs' can be compared with computer files in the sense that their type and usage can be extremely varied.

## Semi-fungible Tokens

Semi-Fungible Tokens, on the other hand, will have a completely different use. Intended to be a widespread consumer product, this token must, nevertheless, retain an identity all of its own.

The most popular example to illustrate Semi-Fungible Tokens is that of cinema or concert tickets. Here, for example, each token has information connected to the date, time and type of event. In the case of semi-fungible assets, it is not the asset but the series that presents unique characteristics.

# Glossary

\*The detailed list of projects within each segment is available at the end of the report

There is hardly any doubt that the blockchain world can seem very complex for newcomers and even veterans may not understand all of its subtleties. This is even more true of Non-fungible Tokens where technical terms are used, often with a very specific vocabulary. To help make this ecosystem accessible to the most amount of people, we would like to offer you the bases of a more simplified vocabulary, which we will be using throughout this report.

## SEGMENTS\*

### Art

NFTs created on artistic marketplaces, from individual collections of artists or a generative art algorithm.

### Collectables

A project, the aim of which is to be collected. They may be avatars (PFP), animals, aliens or any other type of digital item. These collectable assets may have several uses from forming part of a community and being used for video games.

### Video games

Video games using NFTs in their gameplay. They may be weapons or equipment in an RPG, unique skins for weapons or characters.

### Metaverses

Interconnected virtual worlds. NFTs mainly represent virtual land in this segment, they can also take the form of 'wearables' and accessories to personalise your avatar.

### Utilities

Utilities cover very varied uses from domain names to concert tickets. They can also be badges or access codes enabling access to exclusive content.

### Miscellaneous

This last project category includes all smart contracts that are followed by NonFungible.com but not verified or those whose creators are not known. This segment does not appear in the report as such but is included in the global volumes for the year.

## VOCABULARY

### Asset

An asset is an NFT representing either a digital possession only or the digital twin of a physical possession.

### Bitcoin

The first cryptocurrency in history, often called digital gold. This term refers both to the cryptocurrency (also known as BTC) and the blockchain network. Originating after the 2007 financial crisis, Bitcoin is the first cryptocurrency to have solved the problem of double-spending and a decentralised P2P network.

### BUIDL/Buidlers

People working on the different use cases linked to a blockchain. The spelling is intentionally incorrect as a reference to the famous HODL.

### Crypto Artist

Creatives, visual artists,

musicians and filmmakers who create value through selling their NFT artworks for cryptocurrency.

### Cryptocurrency

Operating on a peer-to-peer network without a trusted third party, cryptocurrency transactions are verified and maintained by a decentralised system of computer nodes using cryptography.

### Crypto game/Blockchain

Using a decentralised blockchain rather than a centralised server, NFTs in a video game are distributed directly to players, are interoperable between games and their rarity is verifiable.

### DeFi

Decentralised finance represents many of the usual financial products we are used to including loans and bonds but using the exchange of crypto tokens

### DApp

DApps or decentralised applications are the name of the graphic interface of smart contracts for users.

### ERC

Ethereum Request for Comments is the name designating the token standards for the Ethereum network. An ERC allows any virtual machine to recognise it.

### Ethereum

Decentralised, programmable software platform, allowing developers to create DApps without building their own

blockchain. Its native currency is the Ether or ETH.

### **ETH**

The native currency of the Ethereum network, Ethereum requires gas fees, or Gwei, to make any transaction.

### **Fees**

Ethereum miners have to be paid fees for each blockchain transaction or action. Gas or Gwei is the fee you pay and prices fluctuate according to network congestion.

### **Flipper**

Trader that buys low to sell at a higher price.

### **Fungible Token**

Fungibility is the ability to be exchanged with another asset of the same value. For example, by exchanging 1 BTC for another, they both have the same value at that time.

### **Gas/Gwei**

The Gwei is a unit or denomination of Ether or GigaWei. 1 ETH = 1,000,000,000,000,000,000 WEI, the smallest unit of the Ethereum network. 1 GWEI = 0.00000001 ETH. Ethereum network fees are paid in Gwei, also known as gas.

### **HODL/Hodlers**

Crypto slang for a person holding their assets over the long term. The term was first used in 2013 on the BitcoinTalk Forum by a user who was purportedly inebriated in the now iconic sentence "I AM HODLING".

### **Miner**

Ethereum currently uses a Proof of Work consensus system. Miners are computers running software connecting them to the network, using their time and calculation power to process transactions and verify the blocks that are added to the Ethereum blockchain.

### **Mining**

Performed by powerful computers connected to the Ethereum network and solving complex mathematical problems. This PoW or Proof of Work mining system gives Ethereum 'miners' rewards for the work performed.

### **Minting**

Minting is the process of creating NFTs. You can 'mint' your own tokens by creating a dedicated smart contract or use one of the many dedicated platforms for the creation of NFTs.

### **Non-fungible Token (NFT)**

A unique digital asset. Non-fungible means that each asset is individual and cannot be replaced by another. Humans are non-fungible.

### **Play to earn (P2E)**

Where time spent in a game can be monetised. This may be by selling game items on a secondary market or renting your digital assets won, your land, your wearables, etc.

### **RPG**

Roleplay game, a game genre based on your control of a character in a digital world. The character may be developed

over time by completing quests and overcoming challenges.

### **Semi-fungible Token (SFT)**

SFTs greatly resemble Fungible Tokens a lot for the developer but, for the end user, the tokens work as an indiscernible copy of another from the same set. Developers can sell them as either a set of the same token or individually.

### **Smart Contract**

A program that performs the actions on a Blockchain automatically. A smart contract is launched when an NFT is created or traded but also when tokens are traded using DeFi.

### **Social Token**

Token linked to an individual or organisation in order to promote a community and its social interactions.

### **Trading Card Game (TCG)**

Card game where players battle against other players and collect rare cards.

### **Transaction**

Action on a blockchain that sends cryptocurrency or interacts with a smart contract to store or initiate different programs. For example: Transfer of an NFT.

### **Wallet**

Portfolio for storing cryptocurrency and tokens.

### **Whale**

A Portfolio that is generally rich in cryptocurrency or precious NFT assets.

## INDICATORS

### **Active wallets**

Number of unique crypto portfolios in a project. A single user may have several portfolios.

### **Buyers**

Any user who buys NFTs.

### **Volume of cryptocurrency (DApp)**

Total volume of cryptocurrency that has circulated within a project, including purchases, sales and interactions with smart contracts such as upgrading and updating fees, etc.

### **Volume of cryptocurrency (from sales)**

Total volume of cryptocurrency generated by sales only with the exception of all other types of interactions and fees.

### **Rate of liquidity**

Percentage of the total offer of a specific type of asset that has been negotiated on a secondary market.

### **Price**

Price determined by the vendor or sought by the buyer.

### **Primary market/sale**

Market determined by the initial sale of an asset.

### **Profitable sale**

When the resale of an asset generates more money than the initial purchase price. There is an indent on the word profitable, space before the 'p' needs removing.

### **Retention rate**

Number of crypto wallets that have retained their assets over a specified period of time.

### **Volume of sales**

Volume/quantity/number of sales of assets. 10 NFTs sold in a single bundle are considered 10 sales.

### **Secondary market/sale**

Market determined by sales after the initial sale on the primary market.

### **Sellers**

Any portfolio that sells an NFT

### **Volume of transactions (DApp)**

Total number of transactions of a DApp, including purchases, sales and interactions with smart contracts such as: offers and withdrawals, transfers, minting and configuration, etc.

### **USD volume (DApp)**

Total USD volume of a DApp, including purchases, sales and interaction of smart contracts such as: offers and withdrawals, transfers, keyboarding and configuration, etc.

### **USD volume (from sales)**

Total USD volume from NFT sales only.

# Frequently asked questions

Before going into detail, here is a catch-up session on the basics.

## Where are NFTs stored?

NFTs are stored on the blockchain. These tokens are decentralised and can be traded peer-to-peer. If you uninstall your wallet, the NFT will still exist on the blockchain. When you buy an NFT you can verify its origin, author and metadata on any block browser.

## Where are metadata stored?

NFT metadata can be the location of the virtual land, the image of an artistic creation or even the name of the creator. Although some data can be directly present in the NFT, images are generally hosted elsewhere (on a centralised server or with IPFS solutions).

## Do NFTs have to be bought with cryptocurrency?

No. There is an increasing number of solutions where only a credit card is required to make an NFT purchase. That said, for the NFT to be created, a blockchain has to be used and, by extension, cryptocurrencies. The price paid by credit card will include the NFT creation prices.

## What can I do with an NFT?

A lot! NFTs serve to prove that a unique asset exists on the blockchain. Therefore, this can take the form of a decentralised identifier of weapons or armour in a video game, collectable cards, works of digital art, avatars for social networks or even virtual land.

## Can I resell my NFTs?

Any NFT on a decentralised, open blockchain can be sold. The more centralised the blockchain, the more the freedom to sell the NFT will depend on the creators of the network on which it is hosted.

## What is the minimum entry ticket to buy an NFT?

It depends on the NFT you want! In 2018 it was possible to win NFTs simply by interacting with a post on social networks. Today, a decentralised domain name can be bought for less than \$10. The price of virtual land, collectable cards or even works of art, on the other hand, is extremely variable.

These days 'Airdrops' are still common but the NFTs with the highest value are only given to wallets which already have certain types of NFTs.

As a reminder, CryptoPunks were initially given to wallets which came forward to claim them in June 2017 on the LarvaLabs site. Likewise, most initial 'Axies' in the Axie Infinity game were given to players throughout the world who wanted to discover the game.

## What is the relationship/difference between metaverses & NFTs?

What we call a metaverse is a virtual world. The definition of a virtual world is quite broad and, as a result, there are as many metaverses as there are definitions for this term.

The assets constituting a metaverse can be very numerous: clothing, equipment, land, vehicles, pets and buildings, etc.

An NFT is the representation of an actual possession of a virtual asset enabling the development of a real economy within a virtual world.

# What data has been used for this report?

NonFungible.com collects blockchain data via dedicated 'Blockchain Nodes', owned by NonFungible.com, without using any intermediary or third party.

List of data sources taken into consideration in this report:

## Data Collected Automatically



ETHEREUM  
ERC-721



RONIN



FLOW

## Data Transferred by Third Parties



IMMUTABLE X

ARTORY  
NEW YORK - BERLIN

CHRISTIE'S

Sotheby's

PHILLIPS

It should be noted that NonFungible.com tracks 100% of the ERC-721 token activity on Ethereum, but only activity qualified as coming from genuine has been taken into account. Of all the NFT transfers, a substantial part cannot be considered to form an integral part of the market (tests, robots and wash-trading, etc.).

1,955 active Smart Contracts on Ethereum were taken into account within this study out of a total of 10,915 tracked Smart Contracts.

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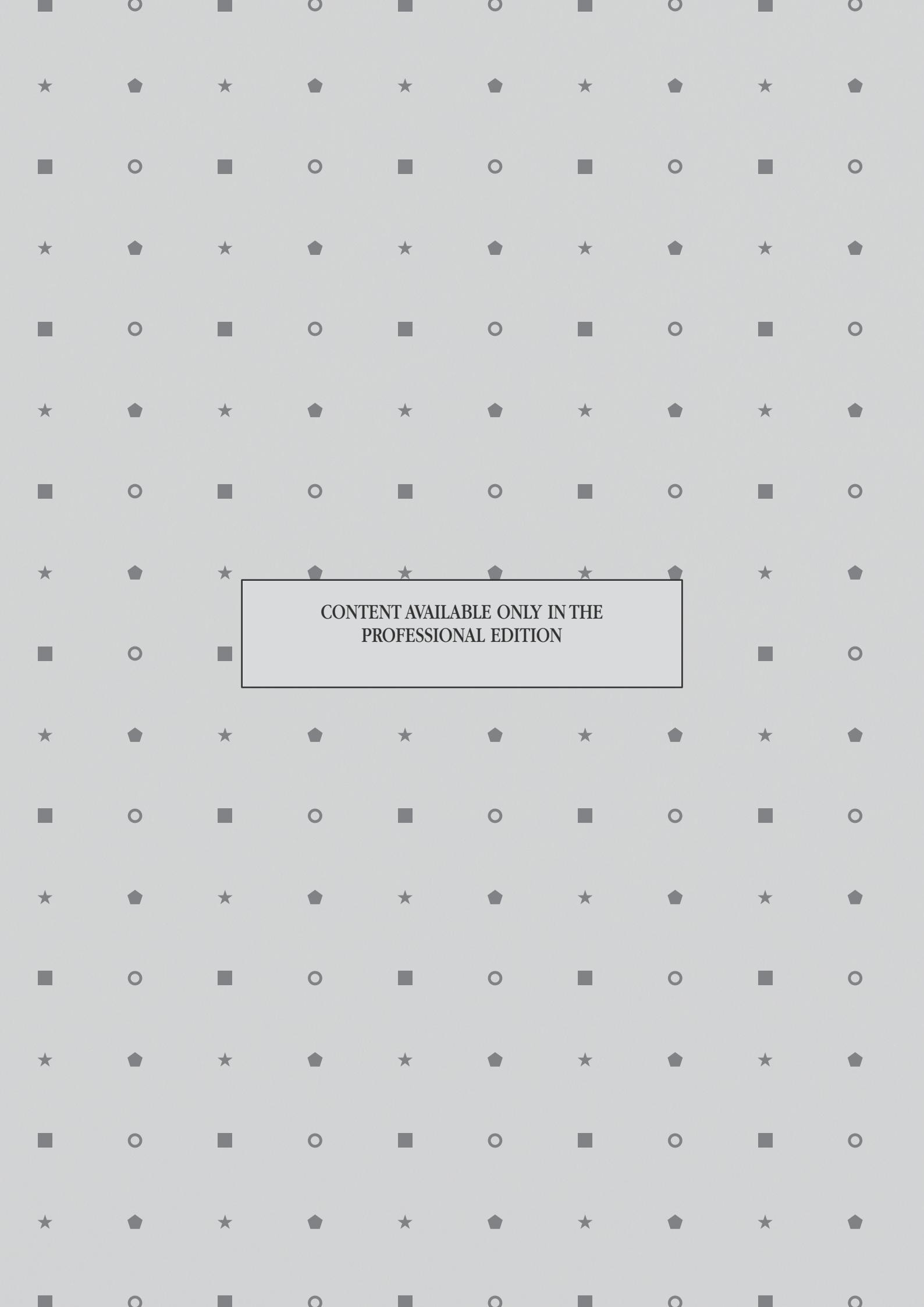


# The Report in 5 minutes

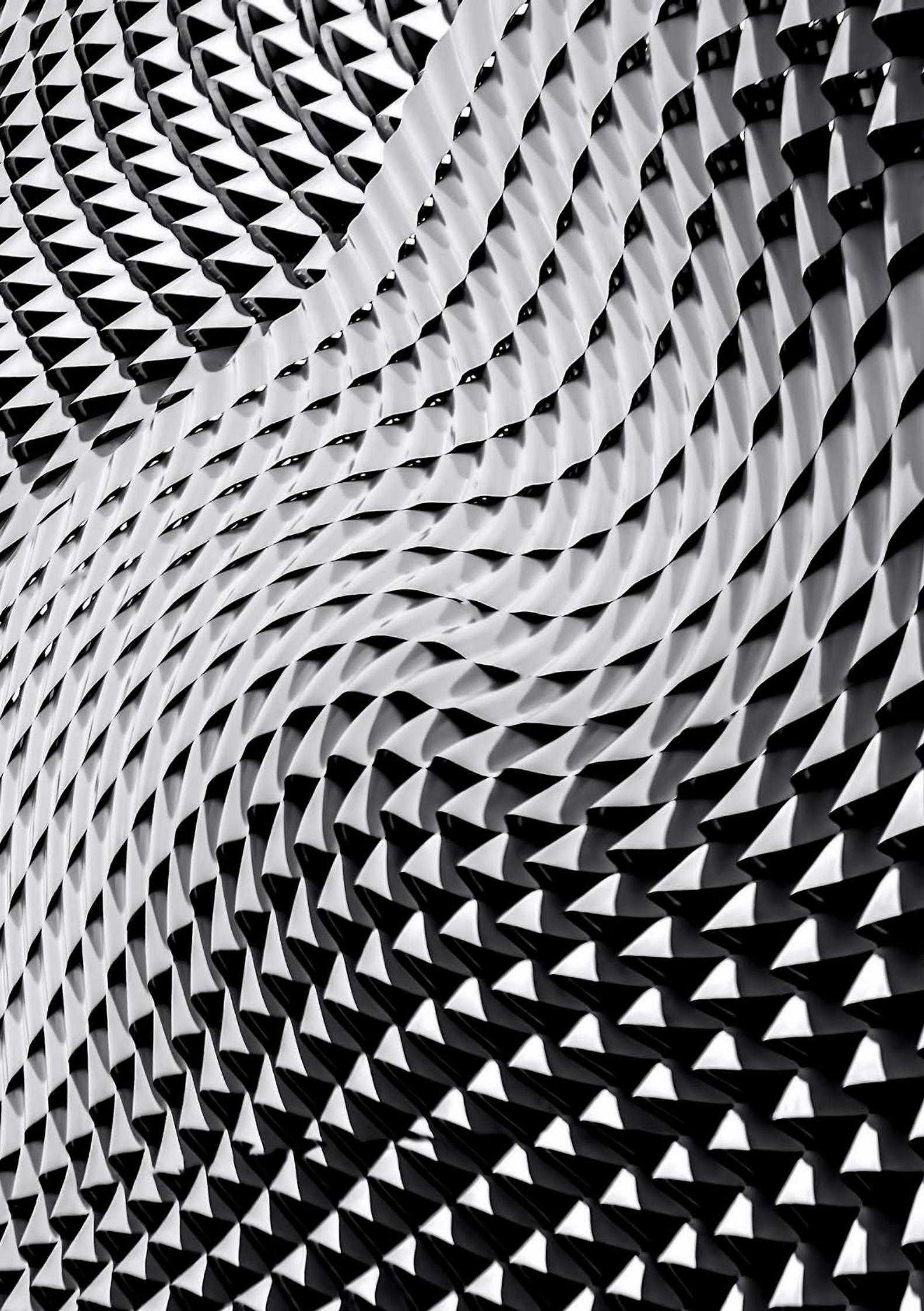
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The Report in 5 Minutes

CONTENT AVAILABLE ONLY IN THE  
PROFESSIONAL EDITION



CONTENT AVAILABLE ONLY IN THE  
PROFESSIONAL EDITION



# A look back at 2021

3

JANUARY

FEBRUARY

MARCH

FUNDRAISING  
AND PRE-SALES**as'ync.**

\$2M round

**@sorare**

\$50M round

**Dapper**

\$305M round

**OpenSea**

\$23M Series A round



Telos launches NFTs that act like US Treasury bonds



Original Nyan Cat GIF sold for \$600,000



Jack Dorsey's very first tweet sells for \$2.9M

KEY  
EVENTS

The Rick & Morty creator sells NFT art collection for over \$1 million



Logan Paul sells \$3.5 million in NFTs in 1 day

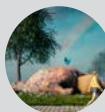


A Banksy original burnt then was sold as an NFT

HIGHEST SALES



CryptoPunks  
Punk #2890  
\$751,692  
600 ETH



Beeple  
CrossRoads  
\$6,600,000  
(NiftyGateway)



Beeple  
EVERYDAYS: THE FIRST 5000 DAYS  
\$69,346,250  
(Christie's)

SALES VOLUME

EXCHANGE  
VOLUME (USD)ACTIVE  
ADDRESSES

APRIL

MAY

JUNE



\$1.2M round



\$18.9M round

## Genies<sup>+</sup>

\$65M round



\$19M round



\$138M  
(\$88M + \$50M from Samsung)



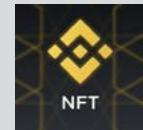
\$75M



Edward Snowden's NFT sold for \$5.5M



"Disaster Girl" Meme sold for £500K



Launch of NFT Binance marketplace



Eminem sells original beats with his 1st "NFT Drop"



"Charlie Bit My Finger" Meme sold for \$500K



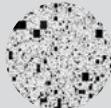
Twitter sells NFT on Rarible



Larva Labs launches Meebits



CryptoPunks Punk #7523 \$11.8M (Sotheby's)



Dreaming at Dusk Foundation  
\$5,454,382  
2,224 ETH



Meebits  
#10761  
\$2,674,665  
700 ETH

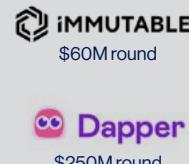


JULY

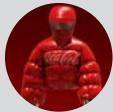
AUGUST

SEPTEMBER

FUNDRAISING AND PRE-SALES



KEY EVENTS



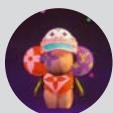
Coca Cola joins the NFT ecosystem via Decentraland



Deviantart collaborates with OpenSea to detect NFT breaches



Jeff Koons reveals he is making NFTs



Louis Vuitton launches its first NFT video game



SuperRare launches the \$RARE token



Fans can earn a role in Anthony Hopkins' new movie by buying its NFT

HIGHEST SALES



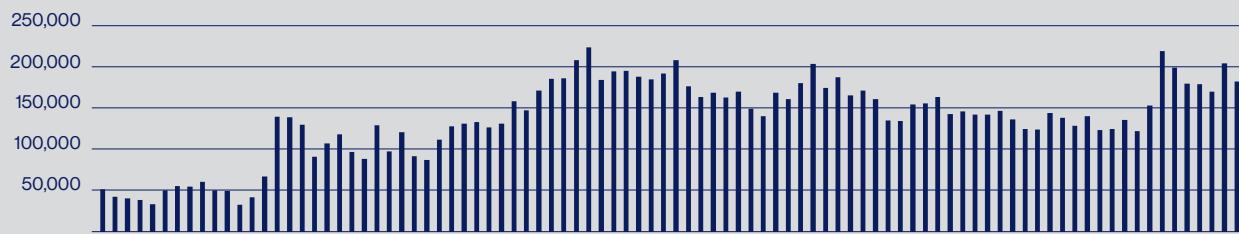
CryptoPunks  
Punk #5217  
\$5,500,597  
2,250 ETH



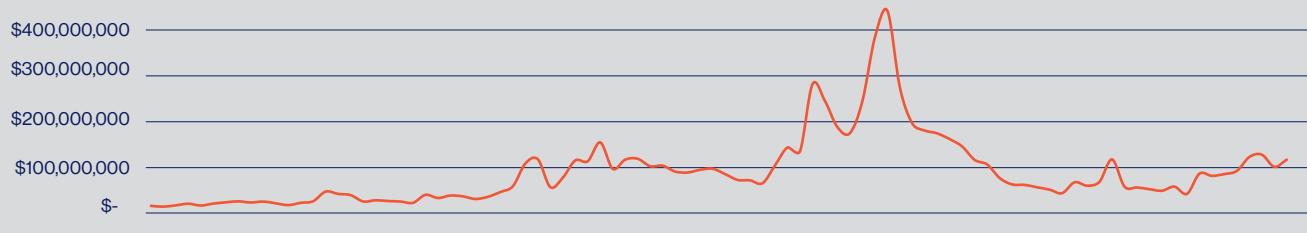
ArtBlocks  
Ringers #879  
Dmitri Cherniak  
\$5,698,249  
1,800 ETH



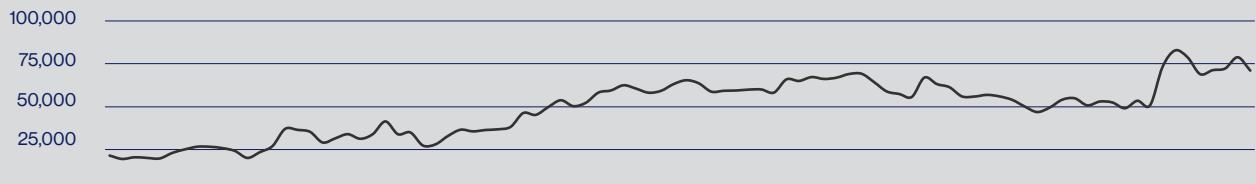
CryptoPunks  
Punk #8857  
\$6,641,920  
2,000 ETH



EXCHANGE VOLUME (USD)



ACTIVE ADDRESSES



OCTOBER

NOVEMBER

DECEMBER



\$65M at  
\$2.2B valuation



**SKY MAVIS**

\$152M at  
\$3B valuation

**MYTHICAL™**

\$150M at  
\$1.25B valuation

**THE SANDBOX**

\$93M round

**brinc**

\$130M

**Arcade.**

\$15M



Facebook announces it is  
changing to META



Seoul announces  
the launch of its own  
Metaverse



Vodafone auctions  
the first-ever SMS as  
an NFT in support of  
refugees



Coinbase launches its  
own NFT platform



Airdrop of the  
"Ethereum  
Name Service"  
cryptocurrency



The Giving Block raises  
\$2.4M for charity  
through NFTs



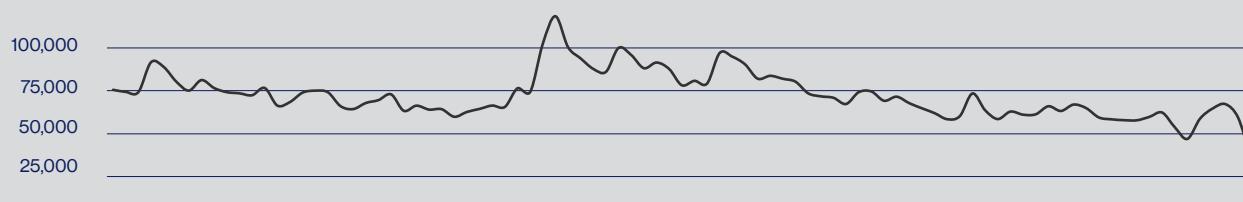
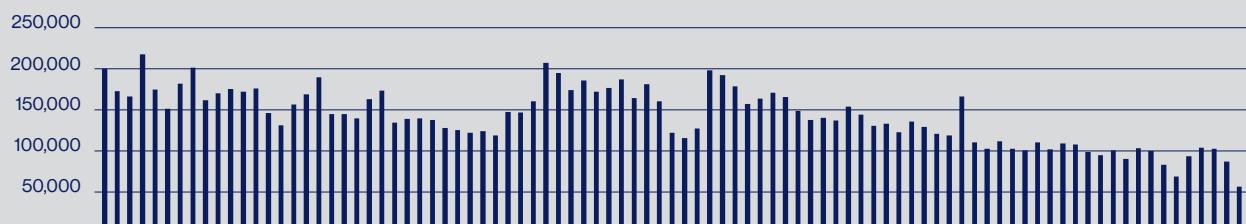
ArtBlocks  
Ringers #109  
Dmitri Cherniak  
\$6,934,137  
2,100 ETH



The "Official Edition"  
of the United States  
Constitution \$43,173,000



CryptoPunks  
Punk #4156  
\$10,256,825  
2,500 ETH





# Overall performance

4

# One year performance

	2019	2020	2021
Volume of dollars traded	\$24,532,783	\$82,492,916 +236%	\$17,694,851,721 +21.350%
Volume of sales	1,619,516	1,415,638 -13%	27,414,477 +1.836%
Buyers	44,324	75,144 +70%	2,301,544 +2.962%
Sellers	25,036	31,774 +27%	1,197,796 +3.669%
Total active wallets	55,330	89,061 +61%	2,574,302 +1.822%
Total profit (when reselling)	\$2,890,230	\$12,074,654 +317.77%	\$5,407,158,315 +44.681%
Total losses (when reselling)	\$1,372,663	\$1,990,198 +44.99%	\$667,191,955 +33.423%
Average number of transactions	2.0	1.9 -5%	1.8 -5.26%
Average length of ownership	84	156 +85.71%	48 -69.23%
Market capitalisation	\$123,999,573	\$372,203,300 +200%	\$16,898,362,987 +4.440%
Number of active Smart Contracts	988	2,001 +103%	10,017 +401%
Average price	\$15.17	\$49.18 +224%	\$807.52 +1.542%

# Definition of indicators

- **Volume of dollars traded** - Total volume traded when buying or reselling NFTs. Includes primary and secondary markets.
- **Volume of sales** - Number of NFT sales during the year. Includes primary and secondary markets.
- **Buyers** - Number of wallets that bought at least one NFT during the year. A single person can own multiple wallets.
- **Sellers** - Number of wallets that sold at least one NFT during the year. A single person can own multiple wallets.
- **New active wallets** - Number of wallets that bought or sold at least one NFT for the first time during the year.
- **Total active wallets** - Number of wallets that bought or sold at least one NFT during the year.
  
- **Total profit (when reselling)** - Cumulative volume of dollars earned when reselling assets on the secondary market (difference between the purchase price and the resale price).
- **Total losses (when reselling)** - Cumulative volume of dollars lost when reselling assets on the secondary market (difference between the purchase price and the resale price).
- **Average number of transactions per NFT** - Average number of purchases/resales per NFT over the year.
- **Average length of ownership** - Average number of days between two transactions.
- **Market capitalisation** - Cumulative average value of all NFTs.
- **Number of active Smart Contracts** - Total number of “Smart Contracts” enabling NFT transactions. A single project can use several Smart Contracts.
- **Average price** - Average price in dollars observed on the markets of all NFTs traded during the year. Includes primary and secondary markets.

## How do we interpret these results?

2020 already showed significant growth compared to the previous year but it must be recognised that the industry entered a new era during 2021.

At the same time, growth was somewhat unbalanced:

- Trading volume, average price, and market size increased dramatically.
- Growth in active Smart Contracts (an indicator which provides an overview of the number of active projects during the year) increased more modestly.

In brief, as demand increased, supply struggled to keep pace. This led to two notable consequences:

- A sharp rise in prices.
- A proliferation of new “Quick win” projects, with low added value.

The community of more than two million active wallets now finds itself, at the start of 2022, awaiting new projects with greater added value in order to live up to the promise made by NFT technology.

## Performance by blockchain

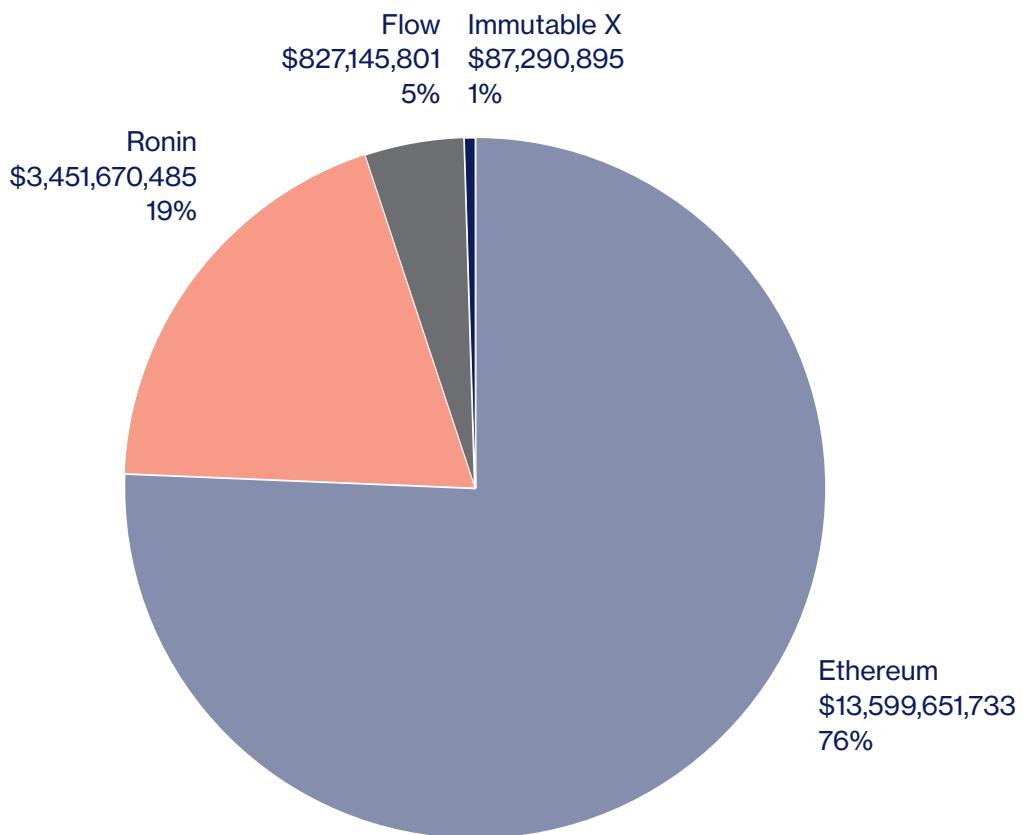


Fig. 01 – Breakdown of the volume of dollars traded between 4 of the main NFT blockchains (2021)

Although we are witnessing a proliferation of networks and solutions technologies, Ethereum remains by far the main blockchain when it comes to NFT transactions with 78% of the entire market.

Ronin (Axie Infinity) took an important place on stage in less than a year and represented 19% of the market, on the other hand Flow (NBA TopShot, MotoGP) and Immutable X (Gods Unchained, Guild of Guardians, TikTok) represent 6% of the volume.

However, it should be noted that Immutable X only started out in April 2021 and that announcements of NFT projects migrating to their platform are growing rapidly, meaning the Immutable X marketshare may well increase sharply during 2022.

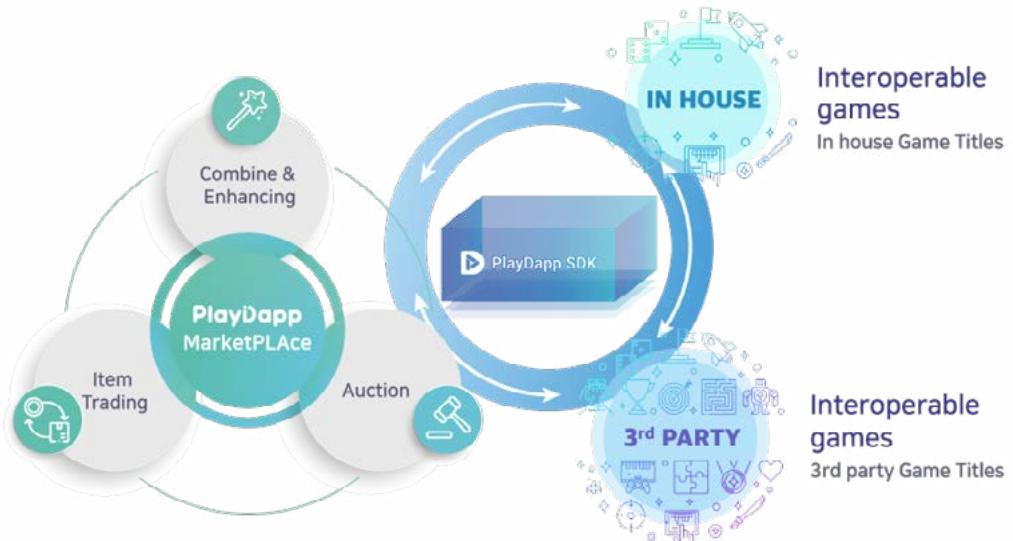


## A Blockchain-Powered Gaming Entertainment Ecosystem



### What is PlayDapp?

PlayDapp is a dApp game portal that provides C2C Marketplace. All PlayDapp games are interoperable thus providing a portfolio of game content that gamers can enjoy with their non-fungible tokens (NFT). PlayDapp's SDK helps game developers or companies who have difficulty building blockchain infrastructure to connect their assets or desired digital items with a simple system integration.



### Interoperable & Play to Earn NFTs

Interoperable NFTs, which utilize PlayDapp's own IP, can serve as a reward for previous gameplay and a natural cross-promotion of new games. This is a means of minimizing marketing costs incurred when recruiting users, and it can further strengthen the PlayDapp ecosystem by providing more diverse benefits to users.



Homepage



Marketplace



Along with the Gods



# Performance in detail

5

## Volume of searches

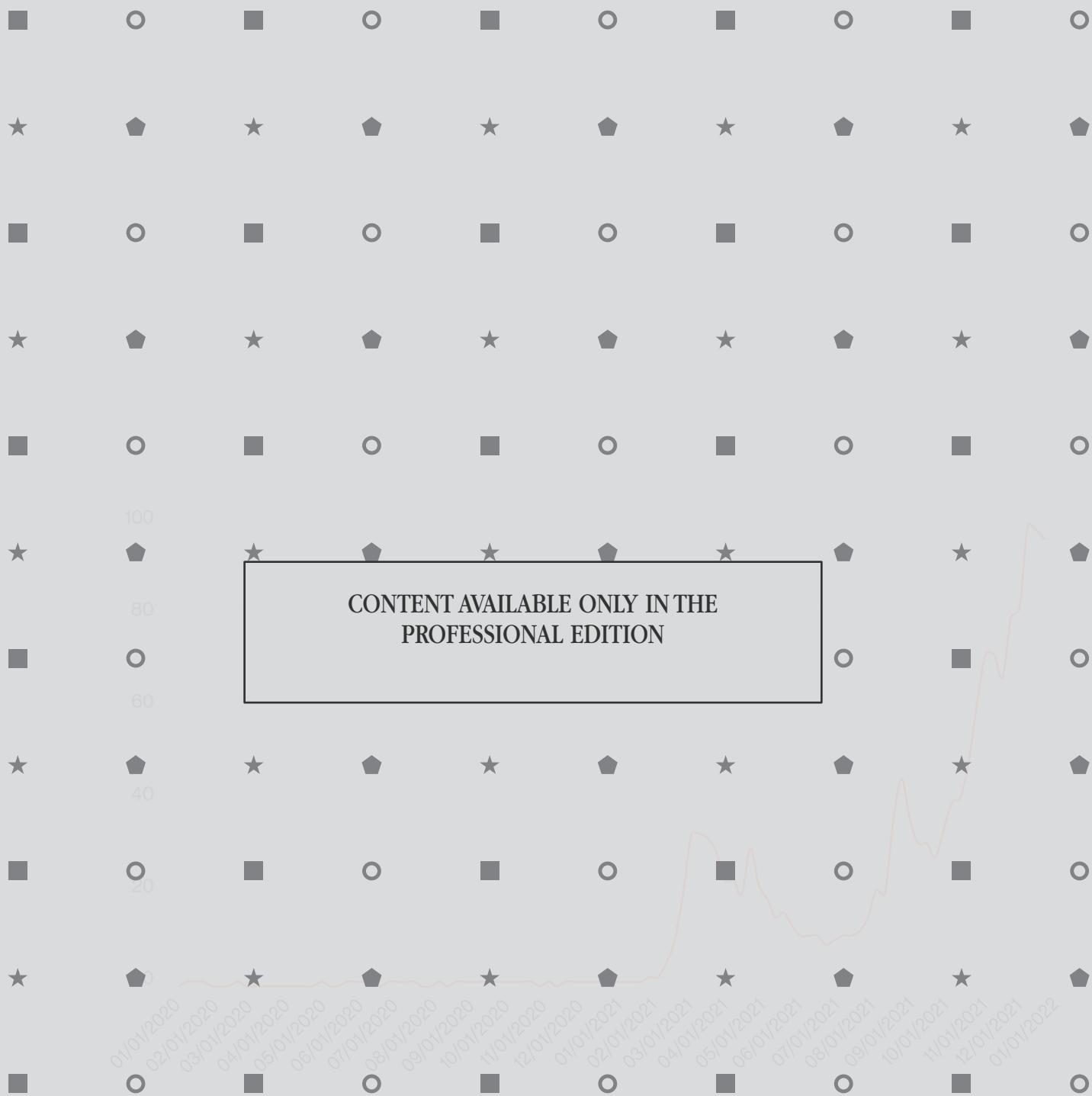


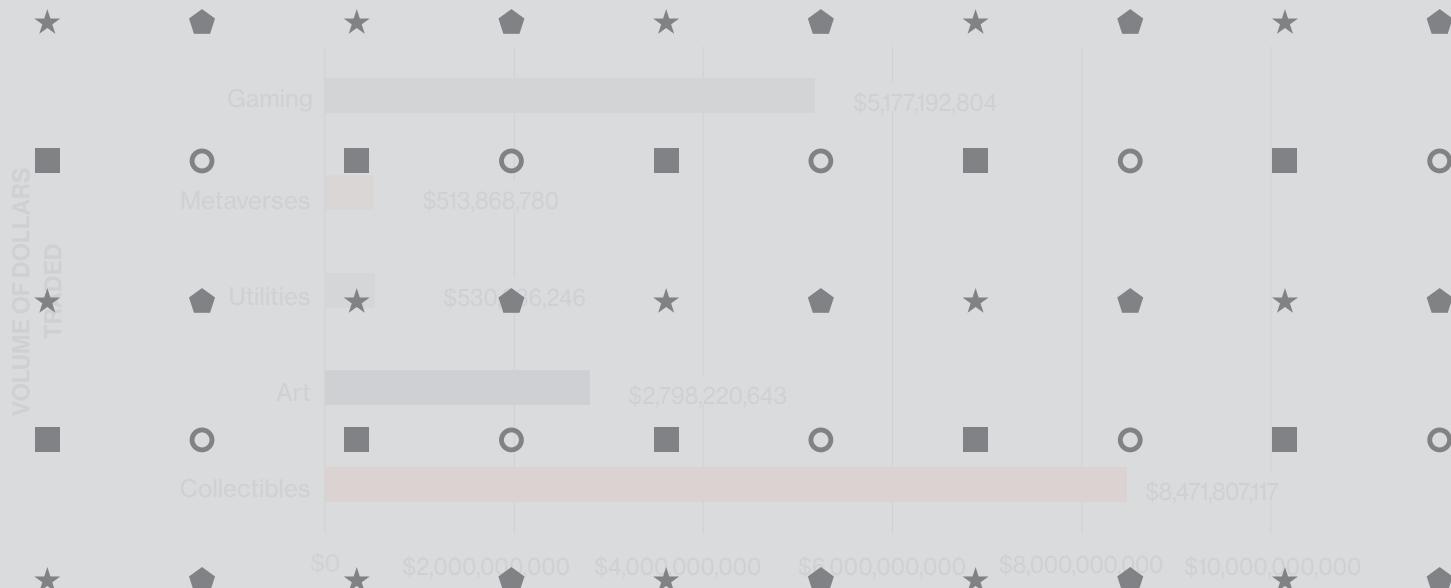
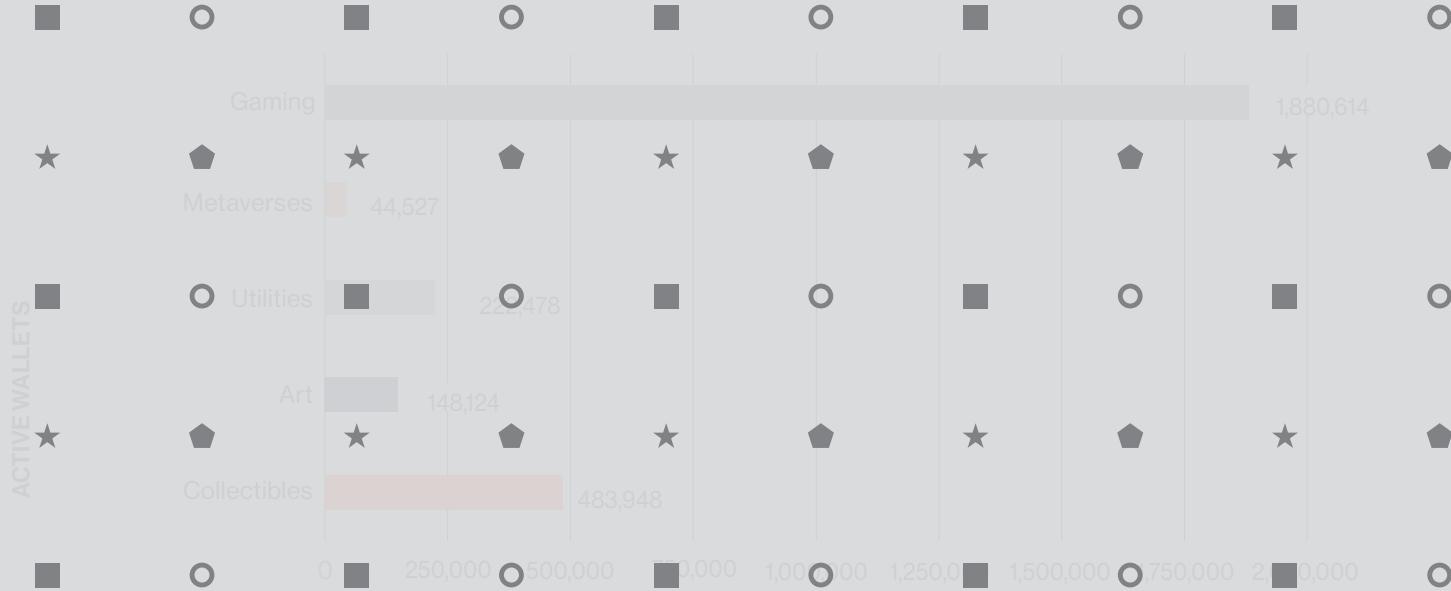
Fig. 02 – Volume of searches on the topic of "Non-fungible Tokens". Source: Google Trends

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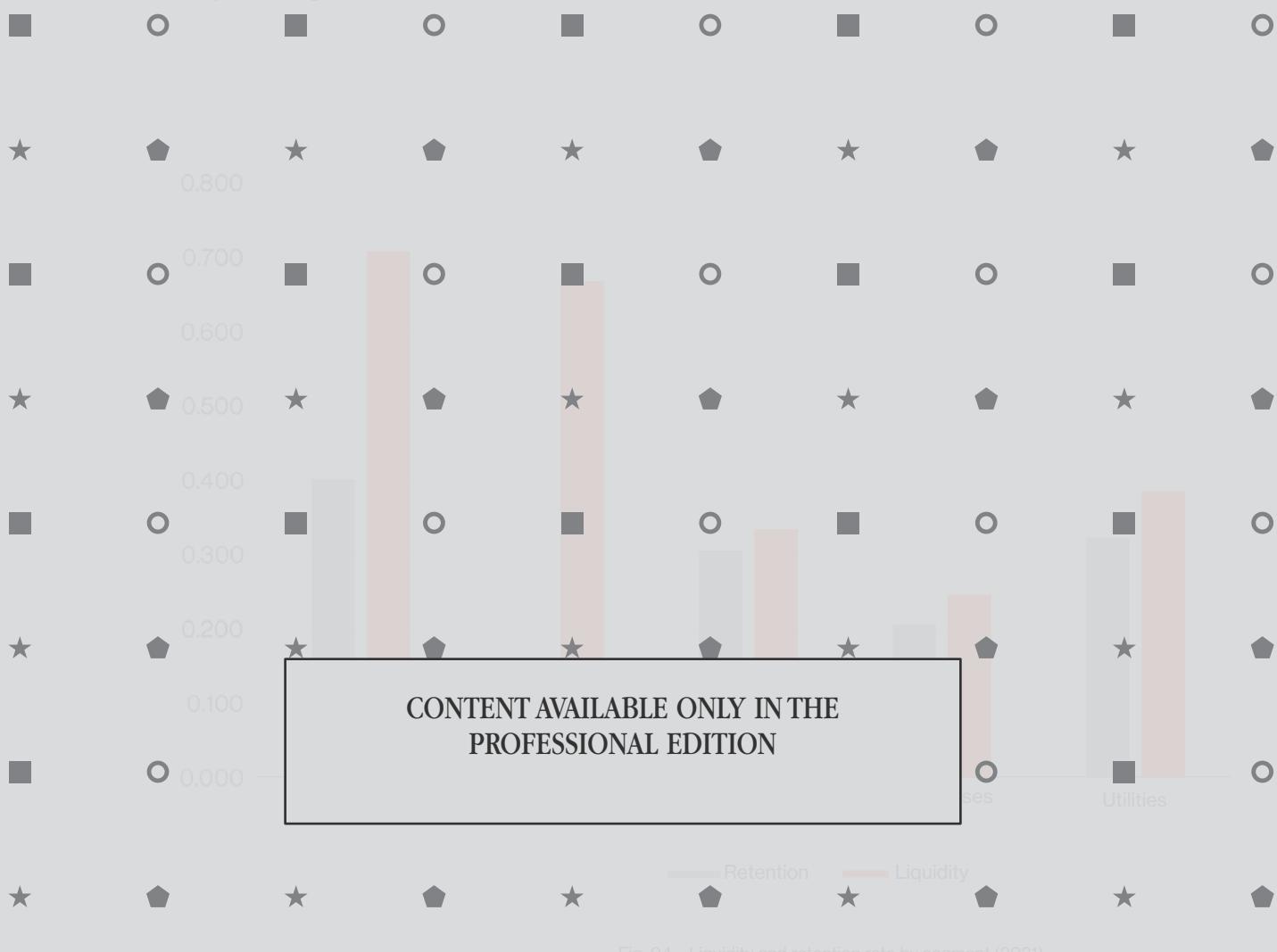
Fig. 03 – Ranking of the 20 countries with the largest volume of searches on the topic of "Non-fungible Tokens" Source: Google Trends

## Performance by segment



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## Community retention and market liquidity



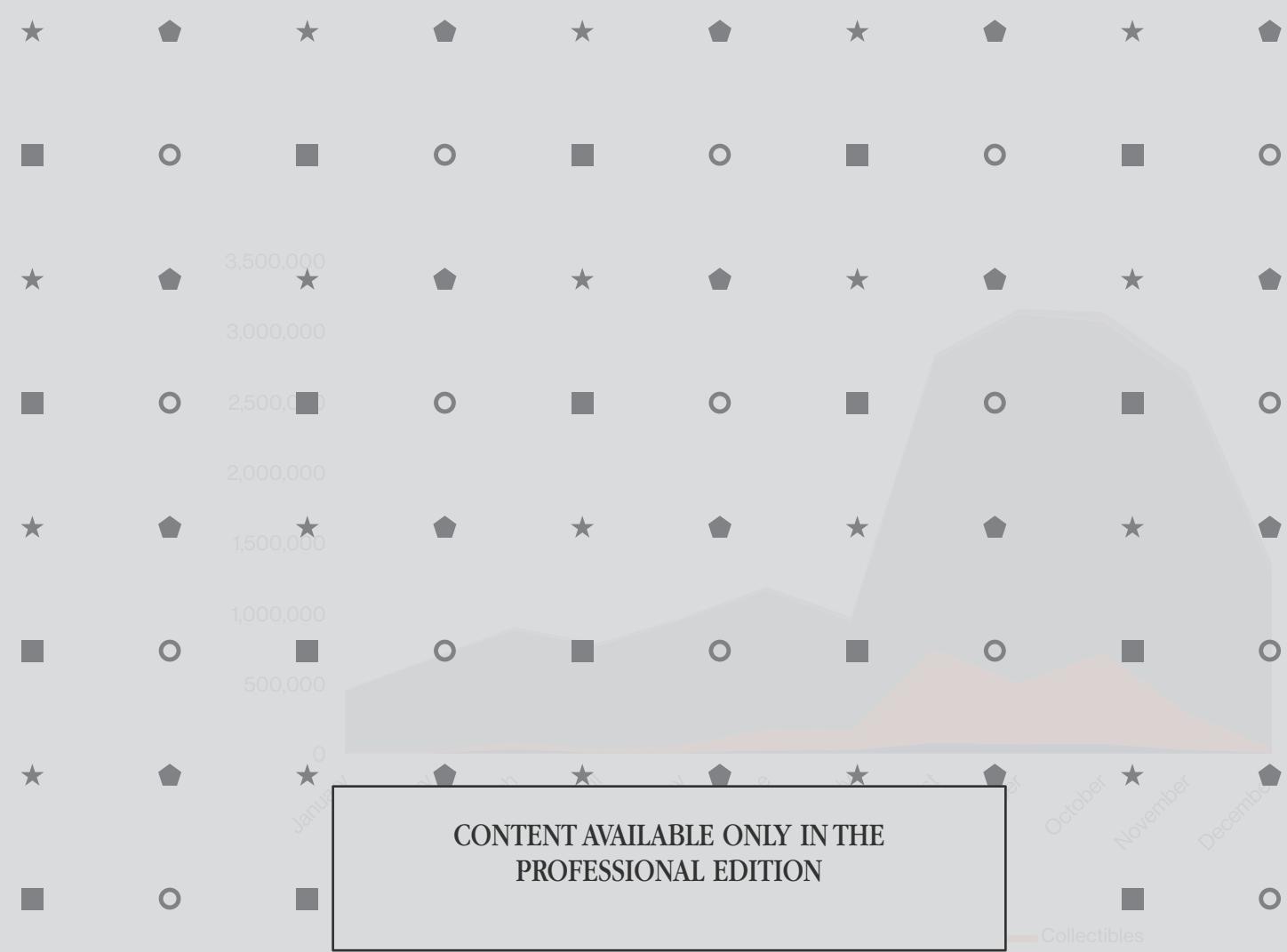


Fig. 05 – Volume of new NFTs put into circulation per month by segment

## Primary and secondary markets

Volume of dollars traded

\$3,062,643,046 - \$12,731,319,063

Volume of sales

\$11,590

748,760

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

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market

Secondary market (2021)

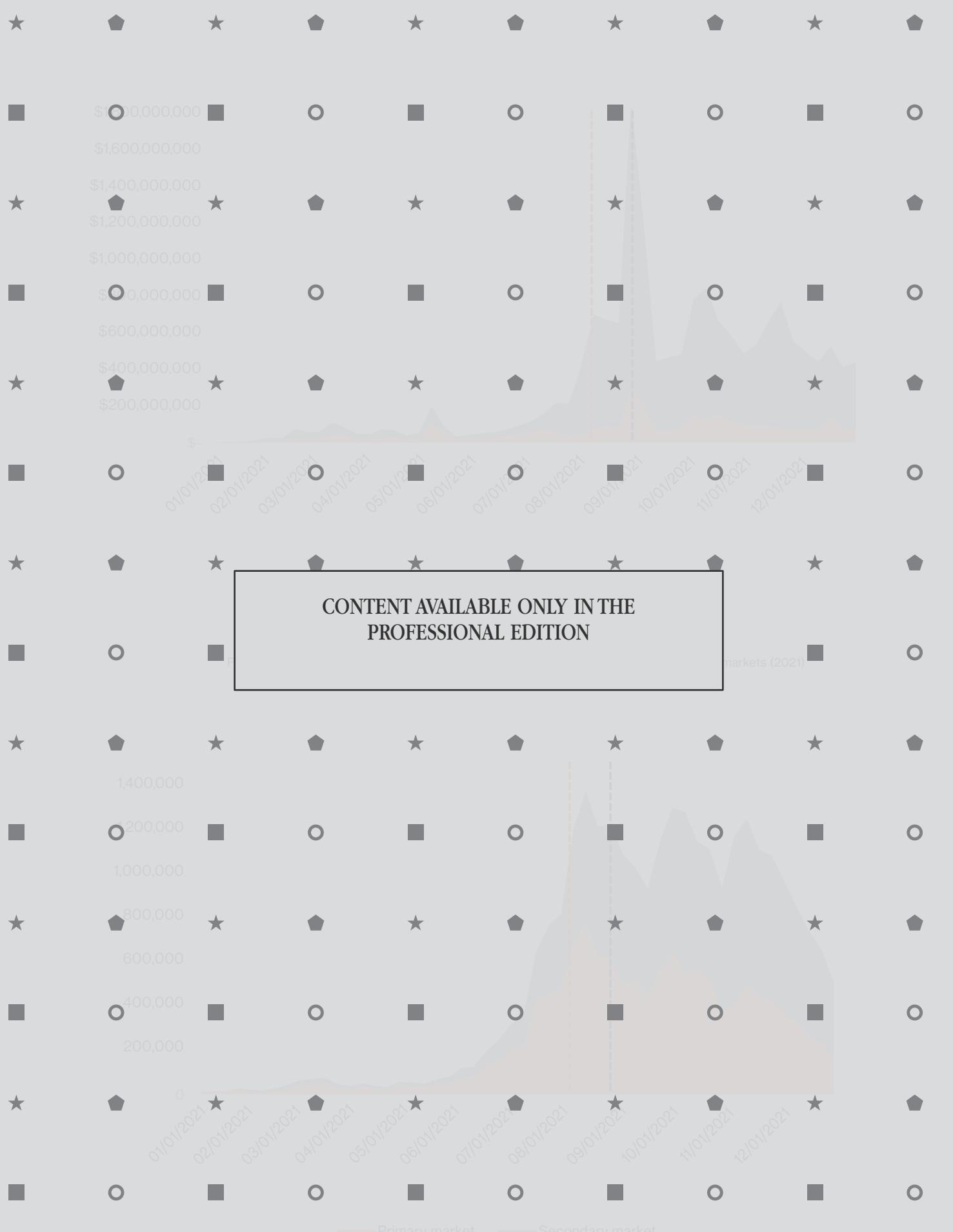


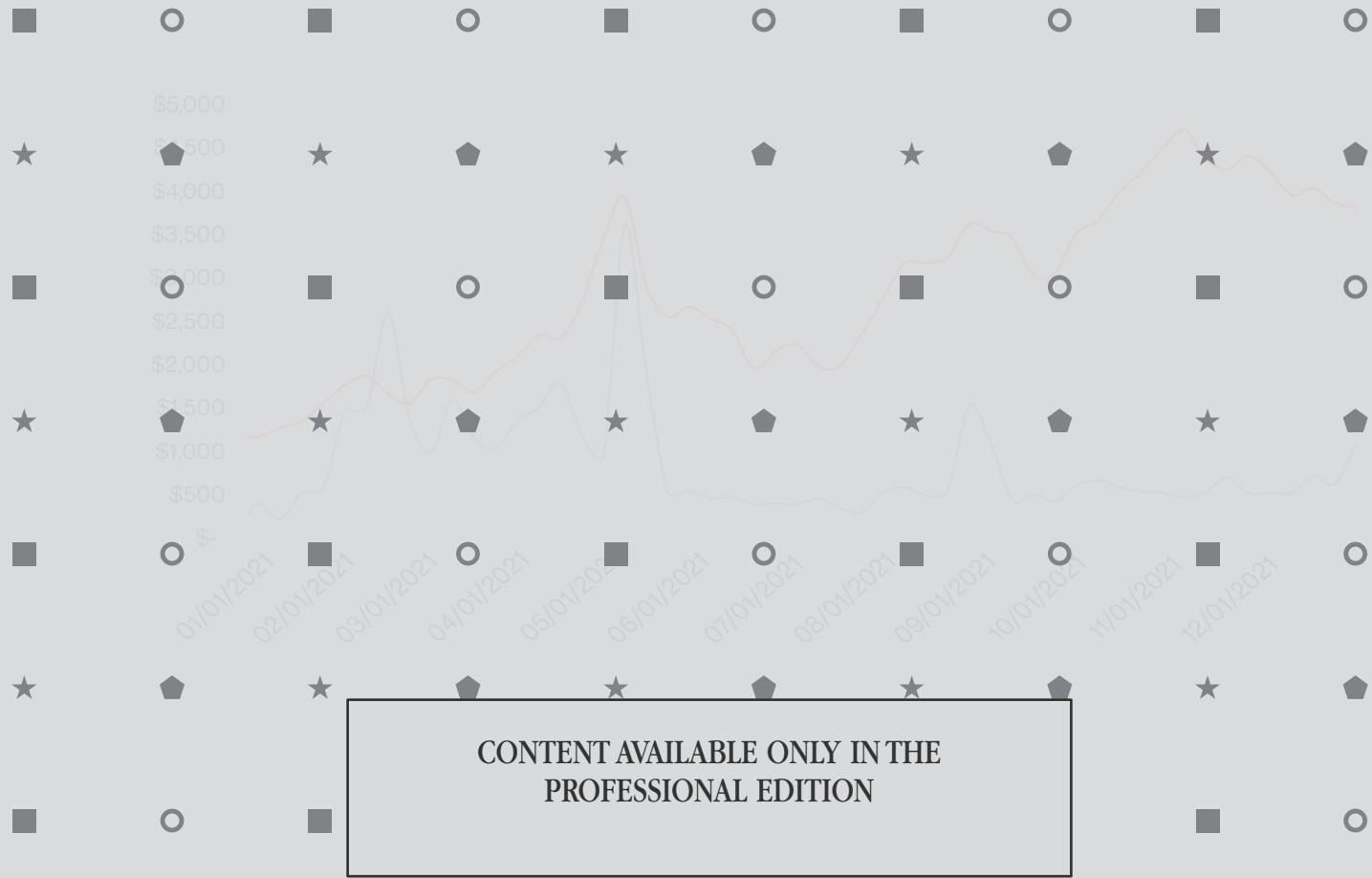
Fig. 08 – Breakdown of the volume of sales between the primary and secondary markets (2021)

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Cryptocurrency	Percentage
ETH (+ WETH)	98.638%
MANA	0.31%
SAND	0.442%
DAI	0.249%
REVV	0.066%

Fig. 09 – Breakdown of the cryptocurrencies used to buy NFTs

## Average price of NFTs



## Impact of the price of gas on volume of sales

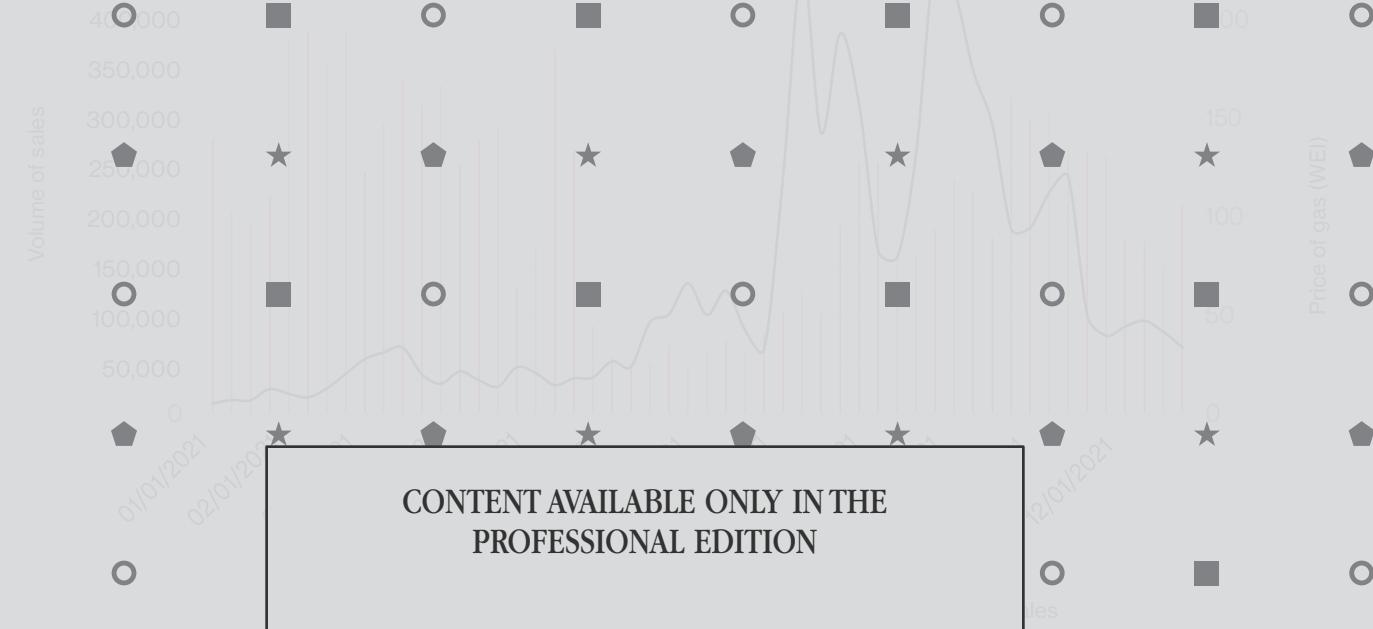


Fig. 11 Evolution of the price of gas and the volume of sales of NFTs on Ethereum

Anyone who has ever bought or sold an NFT has had to consider the price of gas on the blockchain. As a reminder, gas corresponds to the technical costs of the network (Ethereum in this case); the more transactions to be managed simultaneously, the higher the price of gas. In some cases, the price of gas may be higher than the price of the asset you wish to buy, which may discourage a large number of buyers, especially when selling low-value assets (less than \$100).

The graph above shows that the peak period for NFTs, from June to September, took place at a time when the price of gas was at its lowest. The rise in the price of gas over the last quarter seems to have had a fairly large impact on the volume of sales on the Ethereum blockchain.

Of course, this is only an additional factor, essentially influencing a certain type of sales which are relatively low-value but which represent the bulk of transactions.



## The Sandbox : Welcome To The Metaverse

The Sandbox is a unique virtual world where players can build, own, and monetize their gaming experiences using NFT (Non-Fungible Tokens) and \$SAND, the main utility token of the platform. \$SAND serves as the basis of transactions and interactions, enabling players to play, own, govern, trade, and earn. Players can create NFT via VoxEdit and upload them to the marketplace and integrate them into games through the #no-code Game Maker.

Over the past year, The Sandbox has become the primary metaverse destination for NFTs and virtual landowners. With over 16,600 unique LAND owners, The Sandbox is the top virtual real estate company today and this has been supported by countless brands, celebrities, and crypto/NFT communities.

We have partnered with over **200 brands**, IPs and artists including Adidas, Snoop Dogg, DeadMau5, Avenged Sevenfold, The Walking Dead, Smurfs, Manchester City, Square Enix, Atari, and others reaching an audience of over 1 billion fans.

Our long-term vision for the next five to ten years is to become one of the leading open

metaverses. We want to be on par with the notorious centralized ones while offering a better value proposition for creators and players.

2022 will be the year of the metaverse.

Join over 1,000,000 members in the Sandbox community.





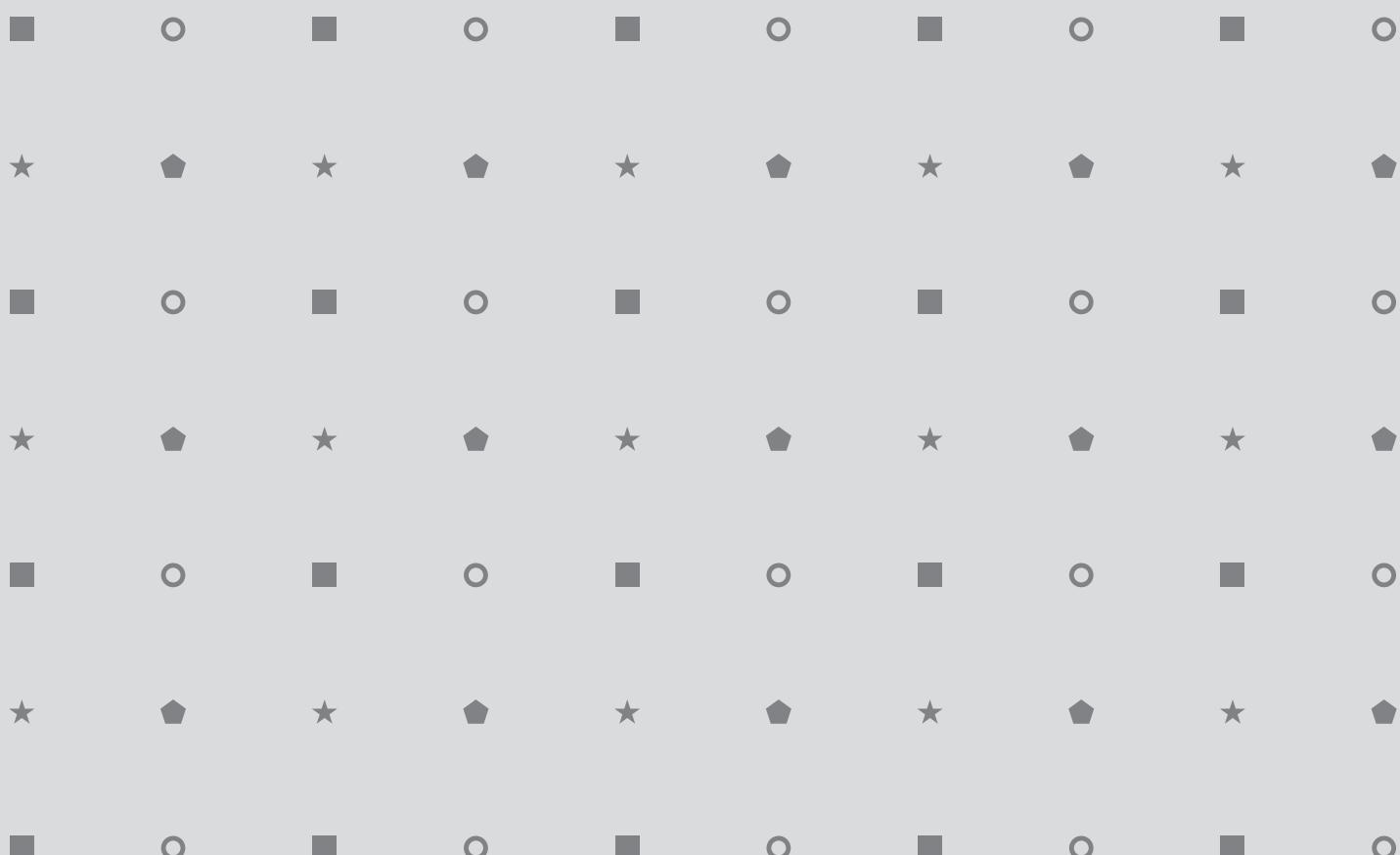
# Who are the buyers of NFTs?

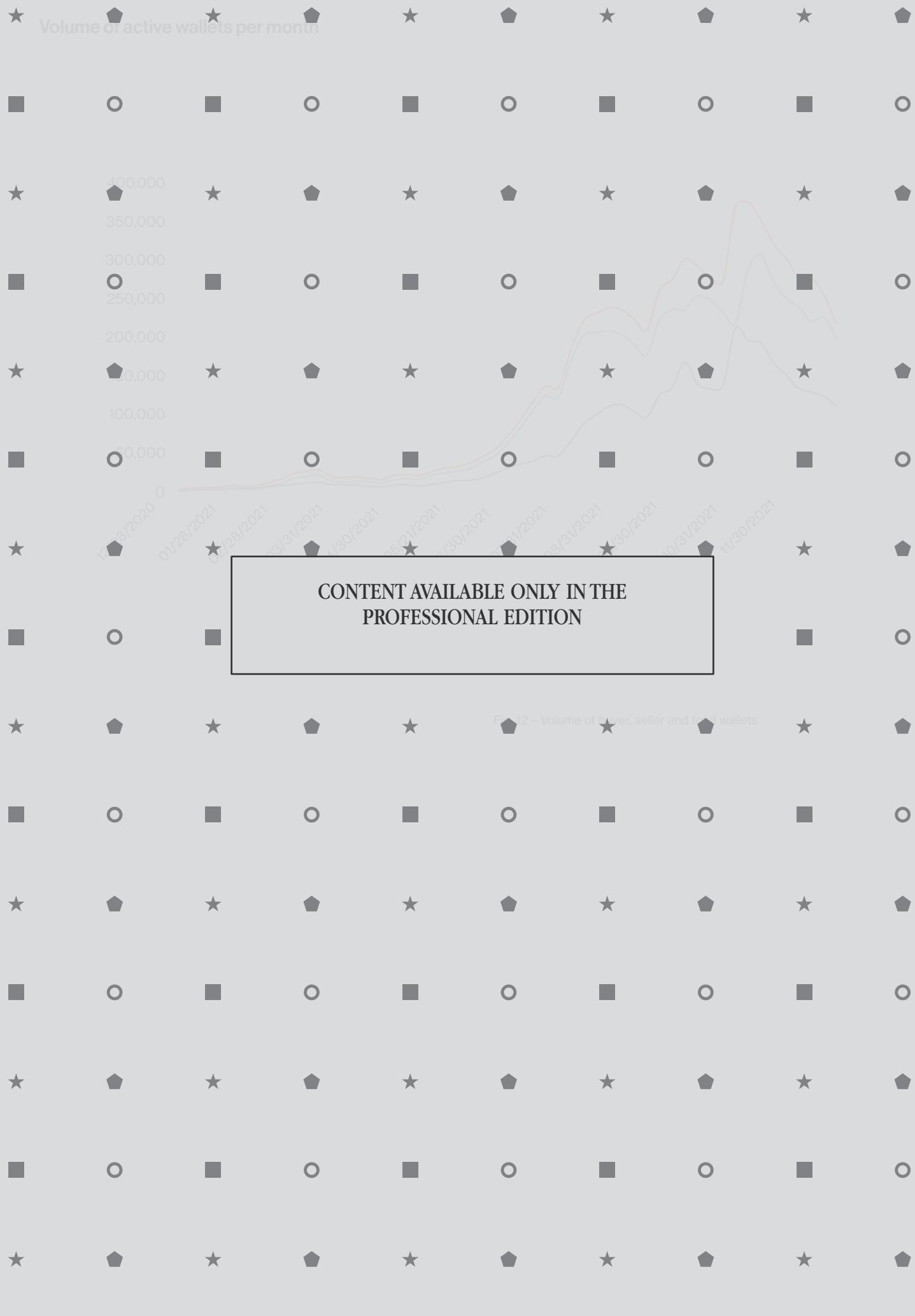
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★ Who are the members of the NFT community?

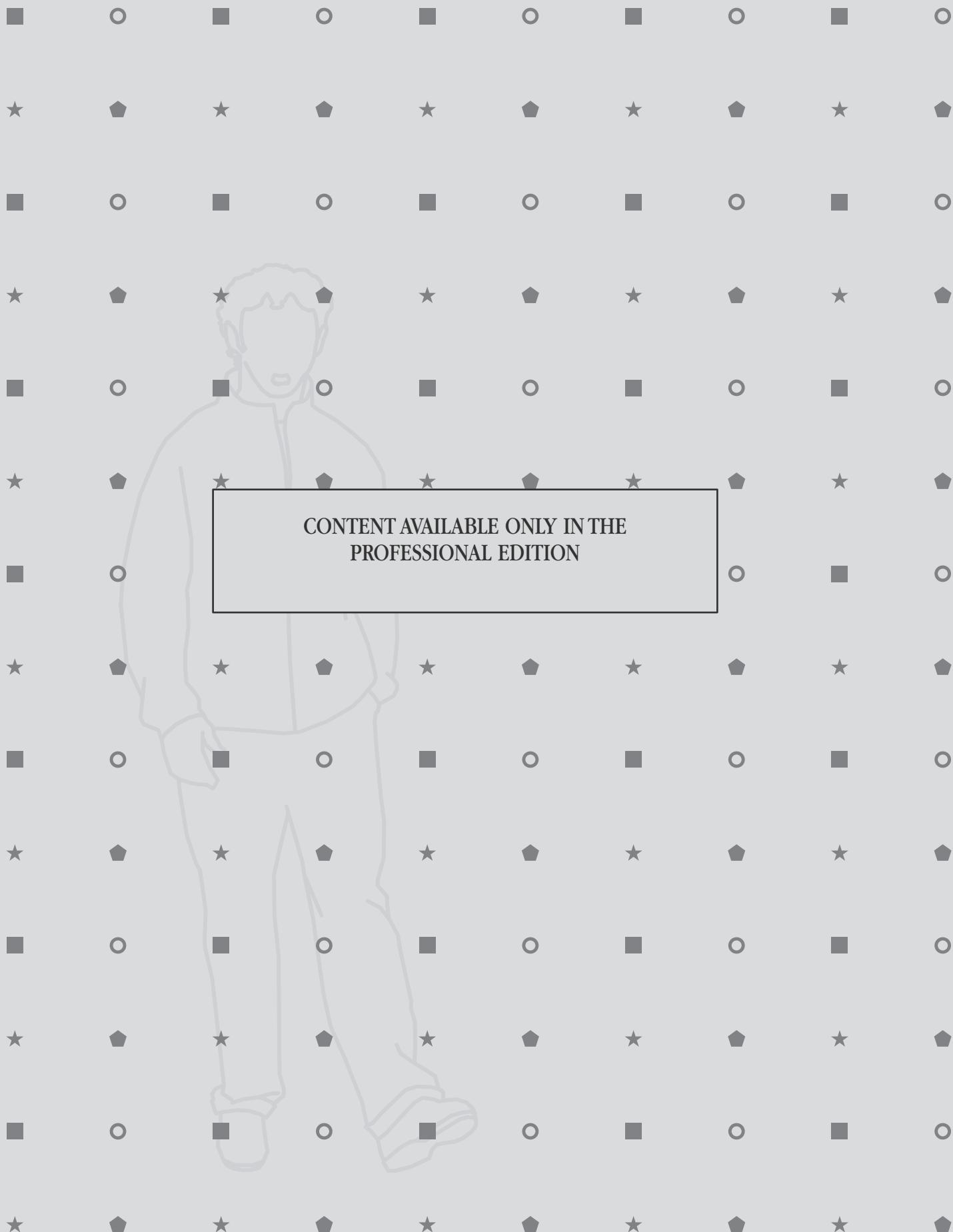


★ Where can the NFT community be found?





★ What does the average NFT collector look like in 2021?



★ The intersections between segments

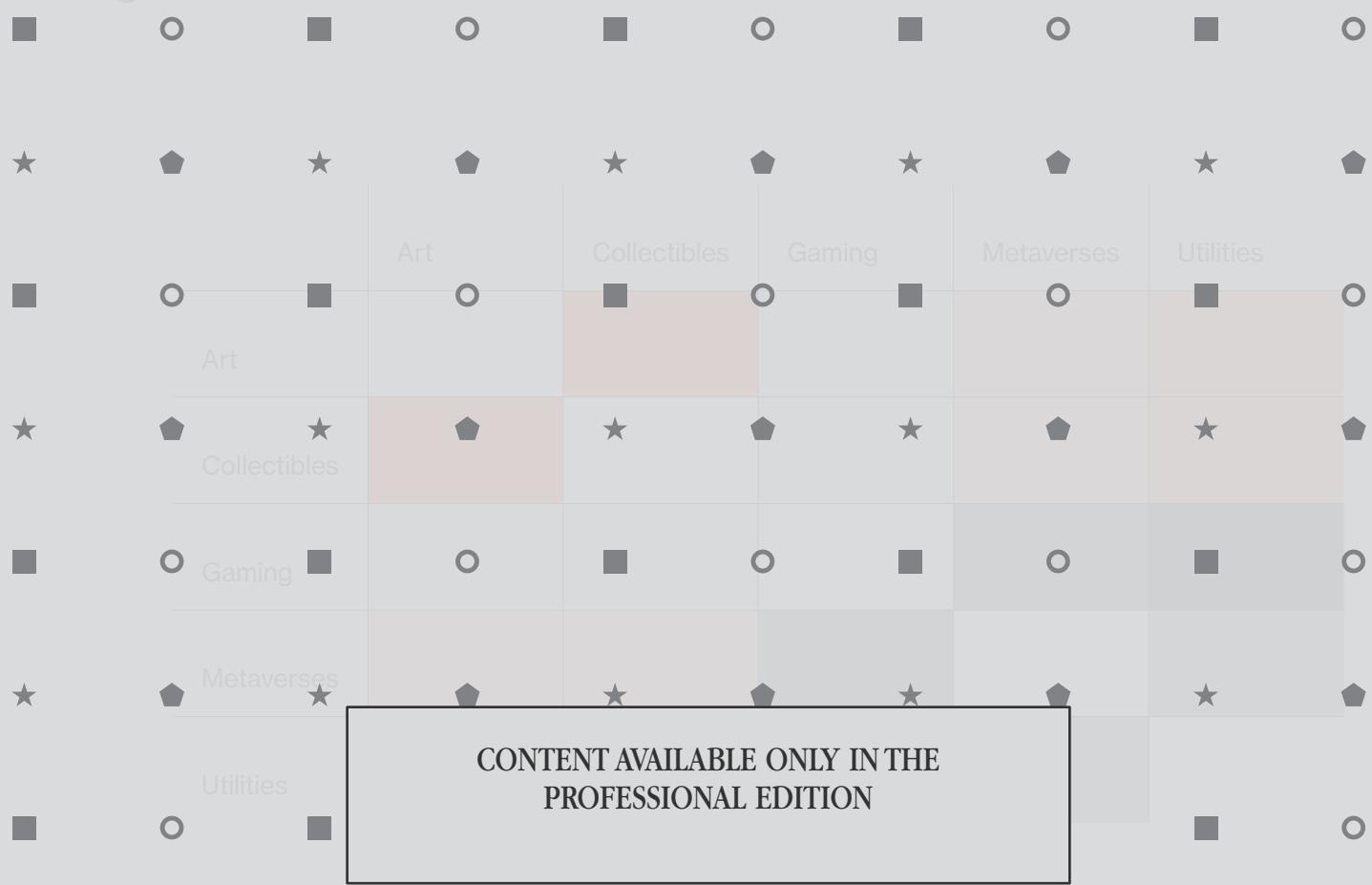


Fig. I3 – Intersections between the different segments (2021)

## Breakdown of the community by spending volume

Between \$10K and \$1M  
0.81%

More than \$1M  
0.05%

Between  
\$10K and  
\$100K  
5.76%

Less than \$10K  
16.79%

Between  
\$1K and  
\$10K  
26.76%

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Fig. 14 – Breakdown of the community by spending volume

Between 100 and 1,000 NFTs  
1.98%

More than 1,000 NFTs  
0.10%

Between 10 and 100 NFTs  
14.20%

Between 1 and 10 NFTs  
70.41%

Fig. 15 – Breakdown of wallets by volume of NFTs purchased

★ How do NFT owners define themselves?

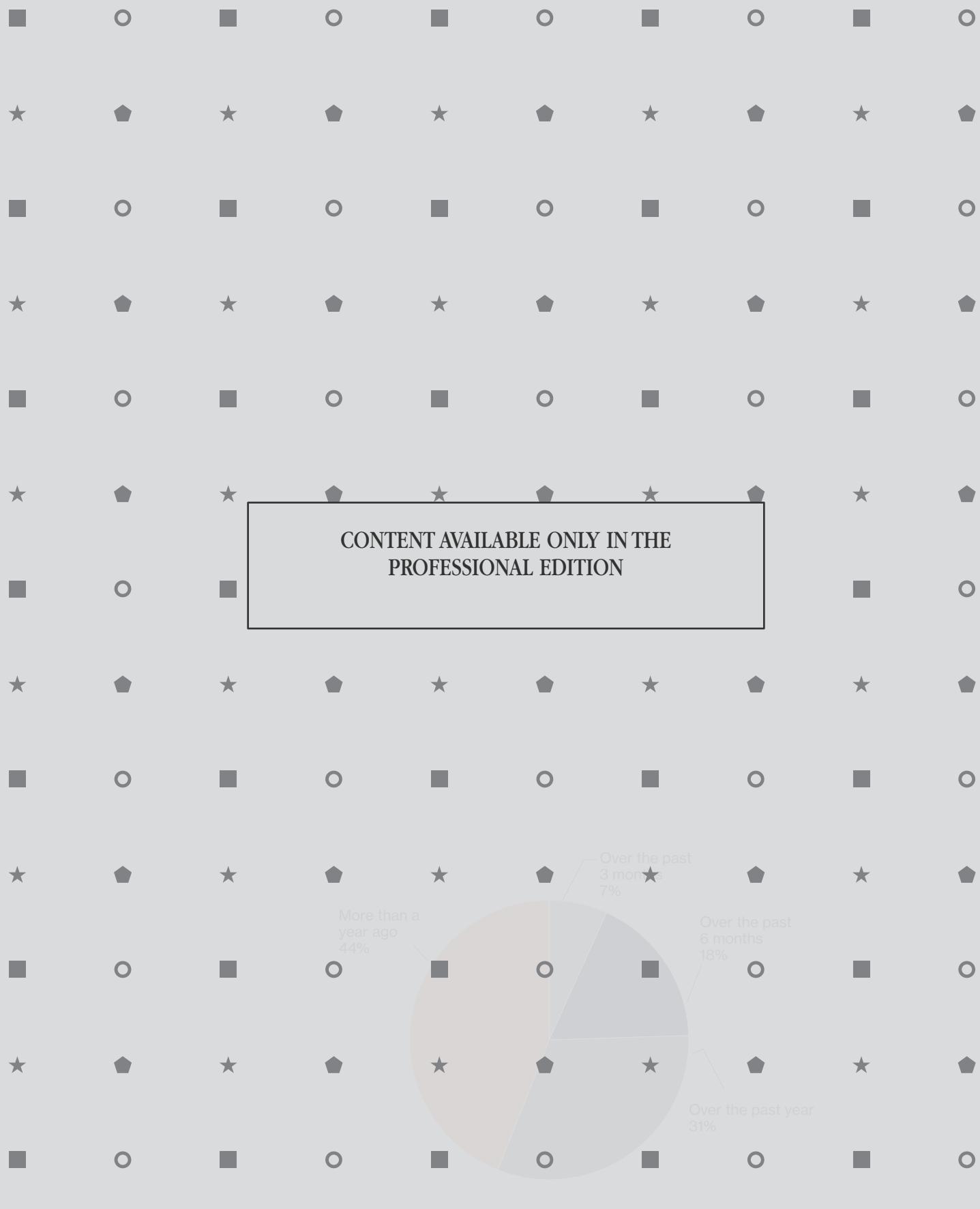
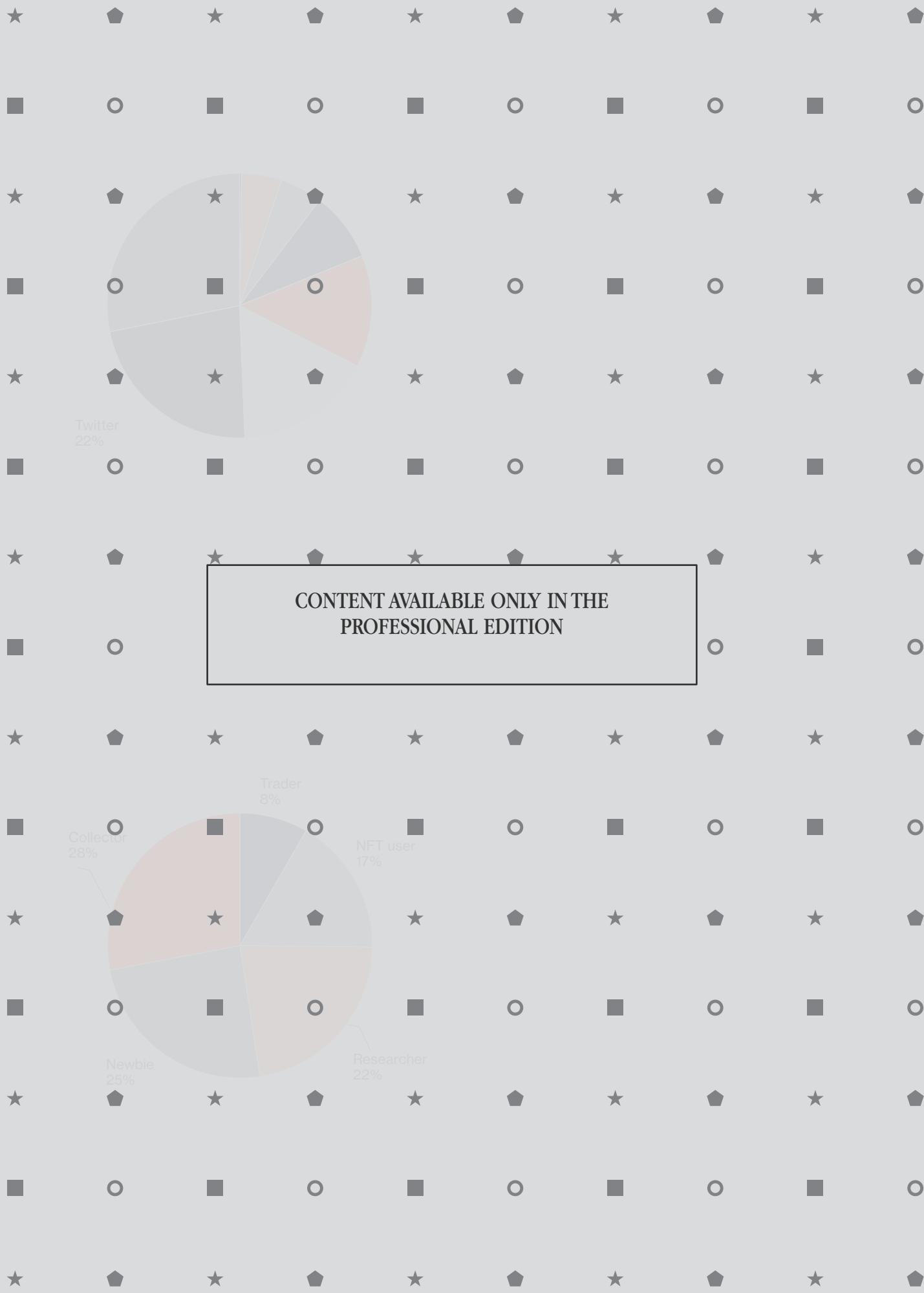
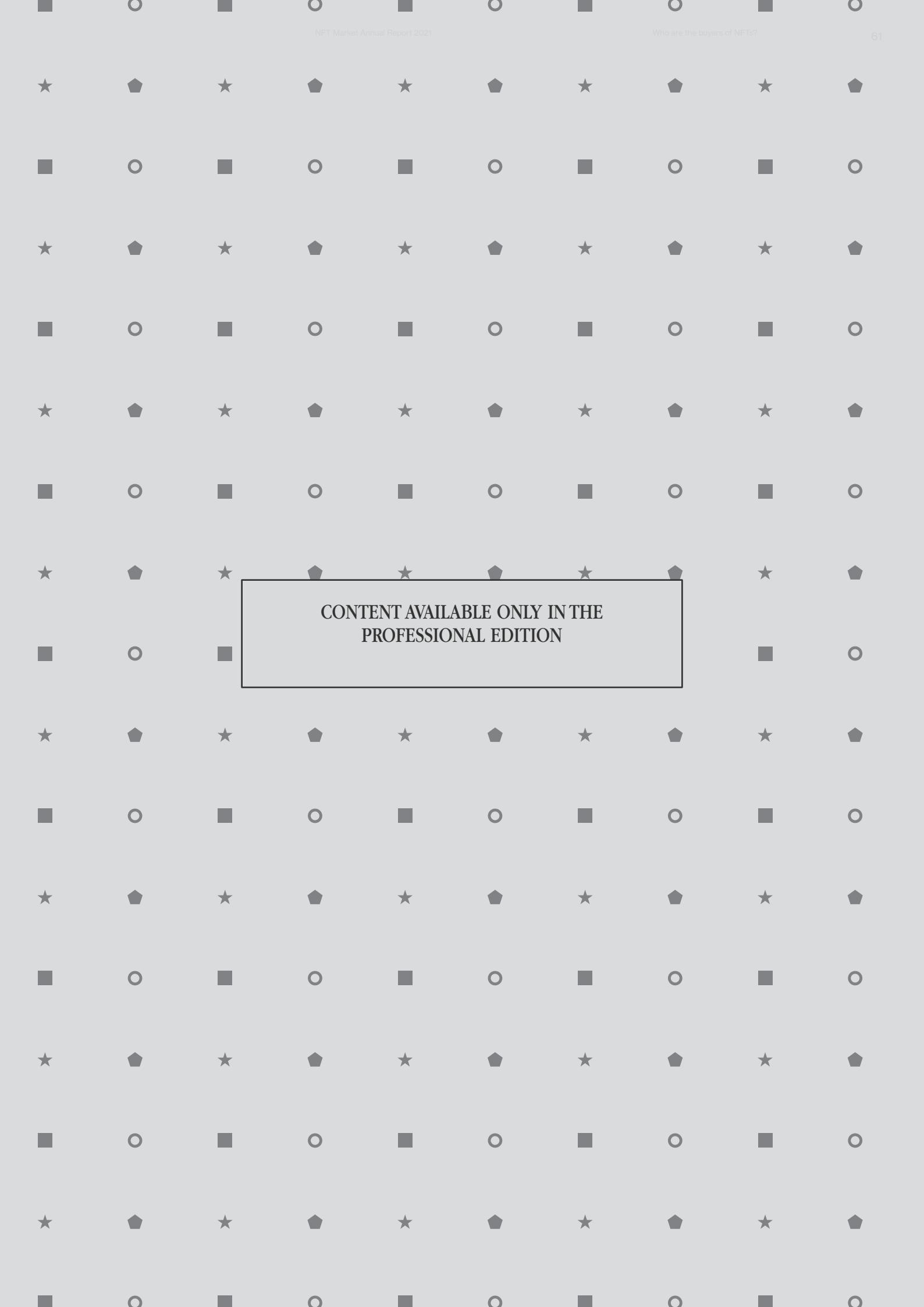
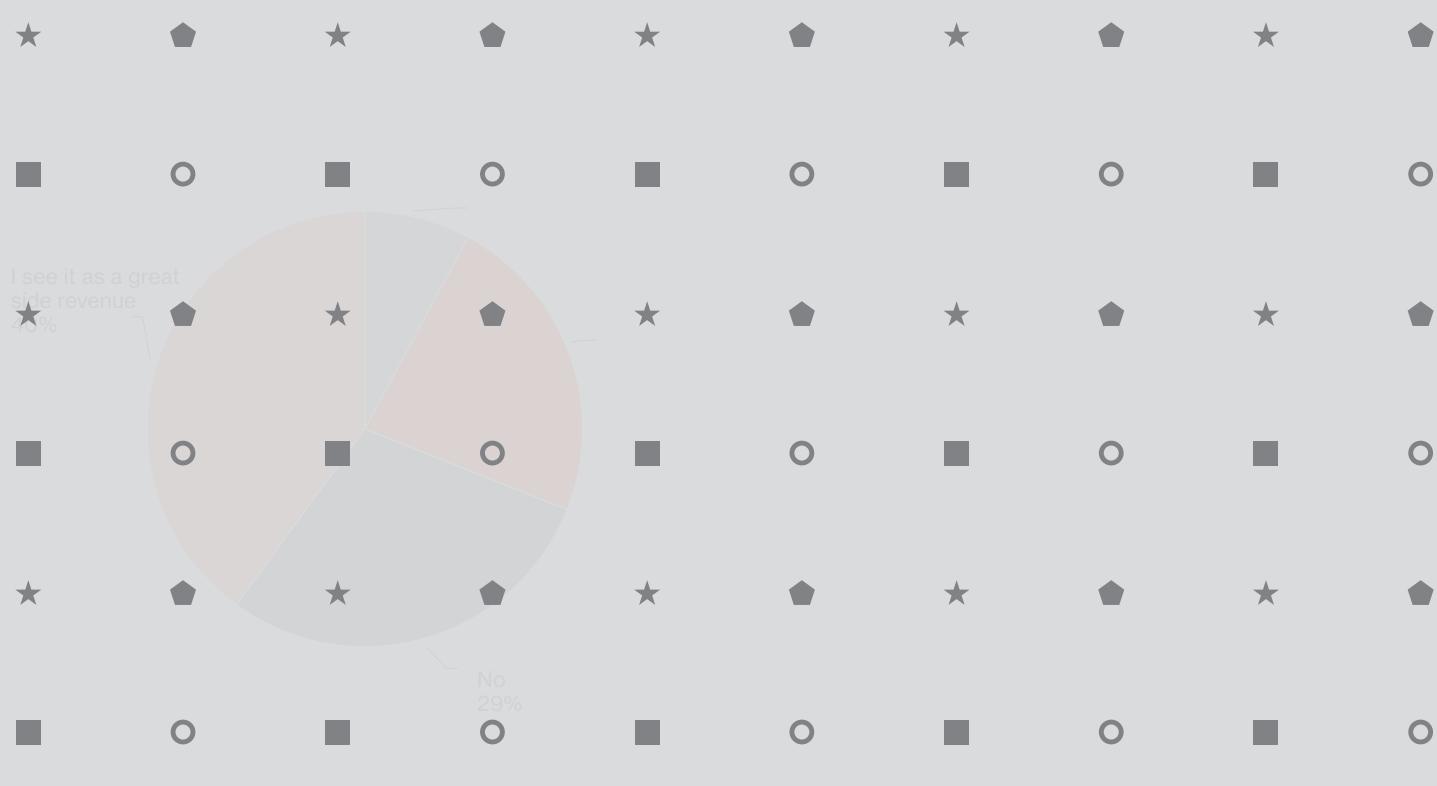


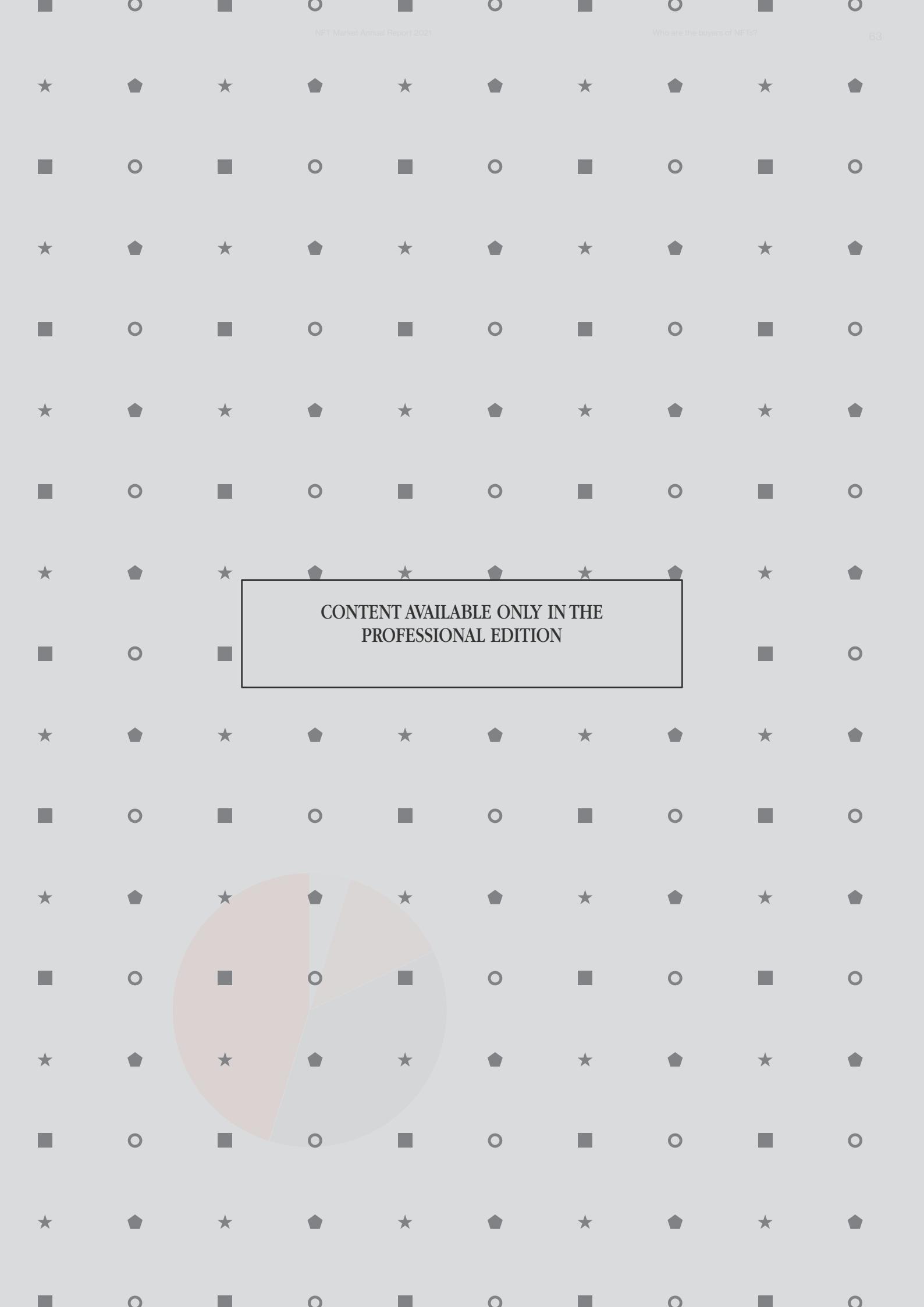
Fig. 16 – When did you first hear about NFTs?





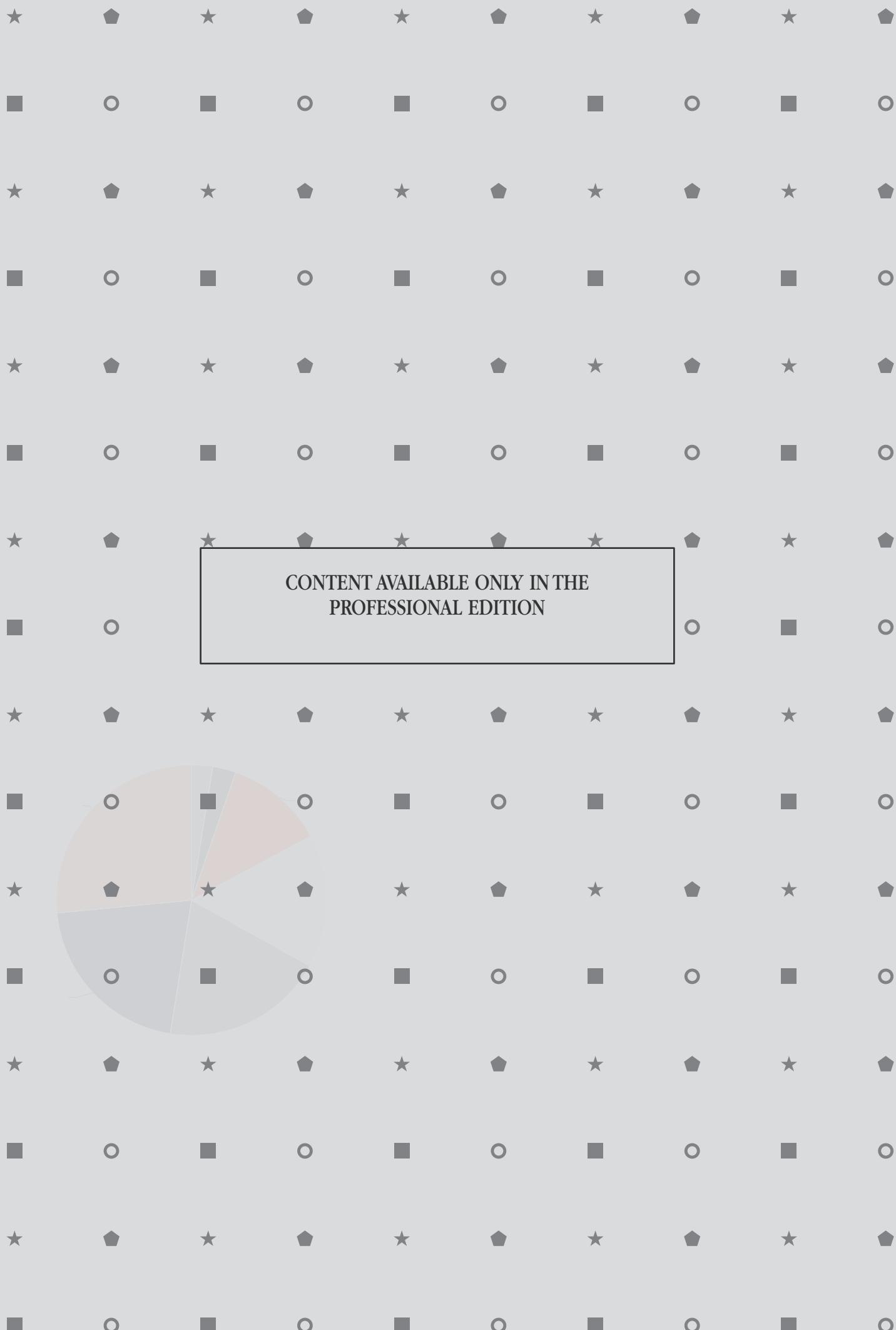
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The image features a repeating grid pattern of small, dark gray geometric shapes: stars and squares. These shapes are arranged in horizontal rows and vertical columns, creating a textured background. In the center of this grid, there is a rectangular area defined by a thin black border. Inside this central box, the text "CONTENT AVAILABLE ONLY IN THE PROFESSIONAL EDITION" is centered in a bold, black, sans-serif font. The overall design is clean and modern, with the central message being the focal point against the subtle, patterned background.



# Who are the NFT collectors?

7

Some spend millions on NFTs, others have built collections of several thousand NFTs over the space of a few years. Who are these collectors and what are their motivations? We went to meet these extraordinary individuals to better understand what led them to engage in the NFT industry. How do these pioneers of the industry perceive the recent market trends and what is their view of the current situation? Let's discover the profiles of the people who have shaped the NFT industry since its inception.

## Creating the first Crypto Art Museum



**Benoît Couty**  
Founder of the Museum of  
Crypto Art (MOCA)

When asked how and why he began the MOCA project, he states with humility that it was a combination of circumstances that led him interact with some of the most promising Crypto Artists on a regular basis during the industries early days.

*"I started by buying parcels in CryptoVoxels. Then, by getting to know my neighbours, I found out that they were mainly artists who were exhibiting their NFTs. I bought the CryptoVoxels official museum, and I exhibited some of their works*

Benoît Couty is undoubtedly one of the leading advocates of Crypto Art in Europe. A lawyer by day and collector of Crypto Art by night, he founded the first museum focused on Crypto Art in 2018, in the midst of a cryptocurrency bear market.

*without necessarily owning them. Some artists (Xcopy in particular) gave me works to exhibit in early 2019. I've been buying works every day for 3 years now. Today I have a collection of more than 600 works (500 on Ethereum and around a hundred on Tezos). I mainly buy works from OG artists, the ones who were there from the start in April 2018 with the launch of SuperRare and KnownOrigin."*

Benoît did not collect art before he

**“I had never bought physical art before NFTs, but since discovering NFT art, it’s made me want to collect physical artworks.”**

discovered NFTs. His interest was in Metaverses via Cryptovoxels first, then Crypto Art when he met his “neighbours”. An interesting phenomenon, his NFT art collection gradually prompted him to turn to so-called “traditional” art.

*“I had never bought physical art before NFTs, but since discovering NFT art, it’s made me want to collect physical artworks.*

*When I saw the prices at which I was buying certain NFT works and I started to look at what was happening in traditional art, I realised that we were in the same price range.*

*Vera Molnár is a prime example. She’s a pioneer of generative art, virtually a living legend in the world of traditional art at 97 years of age, and I realised that her works were selling in galleries for \$8,000, \$10,000. While I was buying NFTs from cryptoartists, which were tributes to Vera Molnár for the same price.”*

The example of Vera Molnar is an extremely interesting case illustrating the difference in value that can be seen between Crypto Art and traditional art markets. Benoît is not surprised by this difference but views it more as two parallel economies, each answering its own codes.

*“When you look at Autoglyphs in the generative art world, you think you’re looking at a work by Vera Molnár, and yet Autoglyphs sell for hundreds of thousands of dollars. By selling an*

*Autoglyph for a million dollars, you can virtually purchase the whole supply of Vera Molnár’s works in galleries all over the world. This discrepancy may seem shocking, but we’re talking about two different markets with two kinds of buyers.”*

To conclude, the Founder of the Crypto Art Museum returns to what motivated him to start this museum project four years ago, establishing the link between his initiative and the very definition of Crypto Art.

*“What’s important to me is to be able to contribute to defining Crypto Art as an artistic movement in its own right. Crypto Art is different from digital art, and NFTs are different again. There are lots of sub-segments in NFTs. Crypto Art is an artistic movement that has its own codes, aesthetics and themes. Not all digital art is necessarily Crypto Art, nor are all NFTs necessarily Crypto Art. Cryptoart is embodied by the artists who express crypto culture through their art.”*

Crypto Art does not lie in one technological medium alone. The very DNA of Crypto Art falls within a hybridisation between a techno-social and artistic movement that artists bring to life day after day via their works.

# Creating a Vault and a Community (WhaleShark)



**WhaleShark**  
Founder of the Whale NFT collector community

In the end, this “Vault” was just one piece of a much more ambitious project: the \$Whale Token, the first social token in the world backed by an NFT portfolio. Since 2019 and in a still very uncertain industry, WhaleShark had already invested several million dollars in NFTs.

So we asked WhaleShark what relationship he had with NFTs at that time and how he managed the financial risk associated with these initial investments.

*“From a personal standpoint, NFTs have always been a hobby and a passion, they’re not my bread and butter. I invested 1-2% of my net worth in NFTs when I first started. When you looked at the investment thesis of NFTs everything made perfect sense, the missing element was when and how NFTs would get mainstream attention. I purchased NFTs at a time ETH was at around 100-250 USD. I’ve checked recently how much would I have made if I was holding ETH only*

WhaleShark has practically become a legend in the little world of NFTs. This Hong Kong businessman has been able to shroud his real identity in mystery whilst gradually becoming one of the spokespeople for the entire NFT industry.

WhaleShark first came to prominence in the NFT community through his countless acquisitions since 2019. A little later, the collector announced the creation of the “Vault”, a public strongbox, comprising his most prized acquisitions (estimated at more than \$100 million by NonFungible.com today).

*and that would be 2000%. Based on the latest NFT vault estimation we are at 6150%.”*

Why did you decide to become WhaleShark instead of disclosing your identity?

*“It was mainly due to privacy and security reasons. When you hold so much of an asset class gathering so much attention around the world, privacy is really something you cannot buy with money.”*

What WhaleShark doesn’t explain here but makes a huge difference in comparison with the other types of crypto assets he could own is that, in the world of NFTs, everything is public. So WhaleShark’s portfolio very quickly attracted attention and due to the monthly valuations of his portfolio, the whole world can see the value of the value of the “Vault” built by WhaleShark. We asked this collector,

who seems to sense trends in advance, if he had predicted the explosion of the NFT market in 2021.

*"In 2020, when I was asked when NFTs would kick off, I would always say two years from now. Any collector who tells you they saw the boom coming in 2021 aren't probably totally honest."*

*[In 2019] I could look at every single art piece that was launched across all of the major platforms that you see today every single day. When you take it versus now, I could spend 24 hours a day and go to every single platform, I still wouldn't be able to go through the number of pieces that have been minted. It's virtually impossible."*

The market has reached a point where even the most experienced collectors find themselves unable to follow trends in a very detailed way. We found out during another interview that WhaleShark was now accompanied by an art curator, who advises him on his buying strategy. In a context where he can no longer follow trends as he used to before, what is his vision for the coming years? Will the bubble burst? Exponential growth? Market stabilisation? Although the adoption of NFTs by the general public is expected by every collector, WhaleShark is a little critical of the markets running wild and the irrational effects of speculation.

*"99% of people tweeting "WGMI - We're gonna make it" don't even understand what is "making it" and how they are going to make it... this is extremely dangerous for the space."*

The famous "WGMI" has practically become a slogan on Twitter, illustrating the potential success in the crypto environment and, more specifically, that of NFTs. Even if this is not systematically the case, "WGMI" is generally associated with a profit, a financial success. In contrast, WhaleShark recalls the vision shared by NFT collectors when he began in this industry, three years earlier.

*"We were building something, contributing to culture, a revolution whereby in a digital age everyone truly owns their digital assets."*

*When you look at that kind of thought process versus what you see today, people aren't here for that philosophical standpoint but more so: how can I get rich by next week. And this is very risky.*

*I see so many sad stories on Twitter of people investing in five different PFPs, they didn't hit the mark on any of them and now they're broke."*

Things have changed considerably in just three years. The types of buyers, the relationship they have to assets, the areas of speculation...the "NFT Dream" seems more than ever to revolve around rapid profit.

Within this space where everything has accelerated so rapidly, with speculation seemingly the main motivation for many buyers and where it's barely possible to follow all the new NFT projects from one day to the next, what would his advice be to a new WhaleShark entering the industry today?

*"Number 1: Make sure you do your due diligence and do a large amount of research before you decide to invest.*

*Number 2: Make sure you develop a clear investment thesis, not only to the space as a whole but also to individual sectors and asset classes that you're going to invest in. You have to know why you're investing, and you also have to understand what exactly is the potential there.*

*Number 3: You don't necessarily have to be the earliest, you need to find the sweet spot in timing. If you enter into certain sectors of NFTs and you're too early, the critical mass of talent is not there yet."*

# Building one of the first Crypto Art collections in the world



## **TokenAngels**

An anonymous collector of  
Crypto Art since 2018

Did you collect art before  
NFTs?

*"Yes I was a small collector, I come from a family of art collectors."*

Did that help you in your approach to  
NFTs?

*"It gives me a different approach for sure, this experience and background helps me to decide what to collect."*

What do the people around you say about  
your activity as an NFT collector?

*"My friends don't know that I am TokenAngels in the NFT space since I prefer to keep it private. I rarely talk about NFTs. I only mention it to a few people when I think they might understand or be interested."*

It's interesting to see this clear separation made by the collector between their activities both inside and outside the NFT space. Later in the conversation, TokenAngels revisits their feelings about the evolution of the industry since its

TokenAngels is one of the NFT art pioneers. If you followed the markets in 2018, you would have already come across the name in most art marketplaces. An avid collector from the very start, TokenAngels wanted to retain their anonymity but agreed to share their experience as an NFT collector with us and to retrace their journey as a Crypto Art collector.

beginnings and that they somewhat miss the "good old days":

*"In the beginning it was about fun and collecting what you like. The energy in the space was better. Now with the hype and speculation, the arrival of new influencers, this has become noisy and the energy has changed. On the upside, I have more experience, and better understand what has value, I have become more critical and professional when I buy new assets, it's no longer about my personal taste only. I am really focused on the period and artists that were in the space before 2020, anything after that doesn't interest me unless it is a real game-changer."*

The collector confesses that they built their NFT portfolio from the start to showcase their tastes and experience in Crypto Art curation. They highlight the fact that everything is public and any action carried out with your wallet is registered forever on the blockchain.

**“Don’t forget that maybe one day people will watch your wallet and this tells a lot about what kind of person you are. If you do crazy things, do it with another wallet and save your reputation.”**

*“Don’t forget that maybe one day people will watch your wallet and this tells a lot about what kind of person you are. If you do crazy things, do it with another wallet and save your reputation.”*

What advice would you give to a new Crypto Art collector in 2022?

*“Firstly, respect the people who have been in the ecosystem before, be thankful to those who created the space especially the artists, the founders of companies and the first collectors. Secondly, do your own work, study about NFTs and the history of crypto art. Thirdly, be part of the community and don’t listen too much to people with more than 10 thousands followers on twitter. It’s a bit of luck, it’s a bit of everything. Anyone who puts passion, time and resources can get there. The whole ecosystem around an artwork makes it important. The people who collect an artist or a project have an impact on their relevance in the end.”*

What do you predict for the coming years?

*“I think we will see a financial crisis so it will be very important to understand whether the blockchain space will follow the traditional market collapse or whether it will take another direction and open up a new era of prosperity for the world.”*

*I assume it will first follow the standard market for a few months and then it will be seen as the new technology that will allow the world to start a new period in which the tokenization of assets will represent a new spirit, a new energy for the whole world.*

*I think NFTs will be the biggest asset class in the world. When there is a financial shock, everything collapses, people need liquidity and sell so prices always go down. The bad NFTs will lose a lot, the good ones will probably lose a bit but it will pass.*

*Yet we should remain careful on Blockchain evolutions. This should remain a space of freedom to people and community and doesn’t turn into chains and surveillance. I really hope that blockchain is not just a marketing tool to kill our privacy and NFTs an ego toy to make us adopt the blockchain and control our lives.”*

# What is it that is still holding some stakeholders back?



**Shari Glazer**  
Entrepreneur, Philanthropist,  
Investor  
Kahlo Labs and US Digital  
Trust Founder

As a reminder, the Glazer family owns well-known sports clubs including the Tampa Bay Buccaneers (Super Bowl 2020 winners) and Manchester United FC. It should be noted that Shari Glazer is expressing her own opinion here and her words do not relate to the financial or strategic interests of the Glazer family in any way.

*"My interest in NFTs started out from the perspective of "how do they play a role in the sports ecosystem? Learning about blockchain technology and thinking through the potential use cases for fans was basically my entry point into this world. There are so many applications for NFT's in sports and metaverse- from ticketing, fan experiences, rewards, collectibles, live streaming, gaming, betting, fantasy leagues and social tokens."*

Shari then establishes the connection between her personal interests and the potential offered by NFTs. It is noteworthy that her interest in NFTs began at a very

Shari Glazer became passionate about NFTs when she discovered this technology's potential and the way they breathed new life into the NBA with the boom of "NBA Top Shot" at the start of 2021. However, despite a very keen interest in this technology and evangelizing work amongst her peers, Shari is not yet an NFT collector.

clear point with the issues surrounding sport and then spread to more personal challenges.

*"Once I understood the technology and scalability of NFT's, I began to look at how they could be integrated into my personal interests around art, fashion and philanthropy."*

When asked about her relationship to NFTs and the collection, her reaction is immediate: she will not be going into this industry to build a broad portfolio of NFTs.

*"I'm not the type of collector that wants to say "I have all these NFT's" in my wallet. I'm more looking at NFT's as a means of changing the economy, to bring people new experiences and a means of giving people financial benefit. I'm looking at the bigger picture of NFT's."*

In parallel, it seems that her infatuation with NFTs is not yet shared by her peers. The feedback she shares with us shows that there is still significant work to be

**“I’m not the type of collector that wants to say ‘I have all these NFT’s in my wallet.”**

done in terms of education and raising awareness.

How do your peers react when you talk about NFTs?

*“You got a lot of blank stares, a lot of “I don’t understand what an NFT is,” “why would I want an NFT instead of traditional art?” - you got a lot of dismissiveness.”*

Although her challenges are more corporate than purely collection related, it seems that Shari encounters another kind of discrepancy at that level. It is not a lack of understanding of NFTs rather a fear of risk that is slowing adoption.

*“I think the biggest problem I’ve encountered is that business tends to be risk-averse, which leads to an apprehension around Web 3.0. This frustrates me a little because I know what NFT’s can do and I would like to see real world applications progress a little faster.”*

To conclude, she tells us what she views as one of the biggest highlights in the NFT industry, in her opinion: the “Creator Economy” and the revenue opportunities associated with it.

*“I’m especially passionate about how blockchain technology can financially empower creators. It can be life changing for someone anywhere in the world to have a new stream of income by playing a game or selling their art.”*

## Creating virtual property assets



**TJ Kawamura**  
Realm Metaverse Real  
Estate Inc Co-Founder

Could you introduce yourself and tell us more about the Republic Realm project?

*"My name is TJ Kawamura, co-founder of Republic Realm, which is one of the largest metaverse investors and developers. We are building utility, infrastructure and experiences in the metaverse. We hold the record for largest purchase of LAND in the Sandbox and own over 3,000 real estate NFTs across 24 different metaverse platforms."*

For Republic Realm, the key to success is clearly diversification. This strategy is the reflection of a more global logic, they believe that Metaverses should not compete with each other but rather offer a whole myriad of complementary experiences. The diversity found here can be compared with that offered by today's social networks: Telegram & TikTok exist side by side as they fulfil different uses, just like Decentraland & The Sandbox the purpose of which is not the same.

Realm Metaverse Real Estate is one of the first organisations in the world to have built property wealth via Metaverses. TJ identified the potential of these Metaverses in 2017 but did not formalise the project in the form of a Trust until 2019. NonFungible assesses the value of the Realm Metaverse Real Estate portfolio every quarter, their assets had a total value of a little over \$42 million dollars at 31 December 2021.

*"We believe there will be multiple metaverse winners with each metaverse holding different use cases from gaming to e-commerce."*

When asked about his long-term vision of the project and Metaverses, his answer definitely makes people think:

*"We consider ourselves as placemakers creating experiences where everyone will have the possibility to develop and express their physical identities through their digital counterparts."*

In other words, the Republic Realm project will build layers of different experiences across the Metaverse. Transforming the blank pages offered by these decentralised virtual worlds into social, cultural and gaming experiences.

It is interesting to note that this project lies also within a broader dynamic of expression of its digital identity. This idea is key within NFTs with the boom of Metaverses and the multiplication of avatar projects making it possible to evolve within these digital spaces.

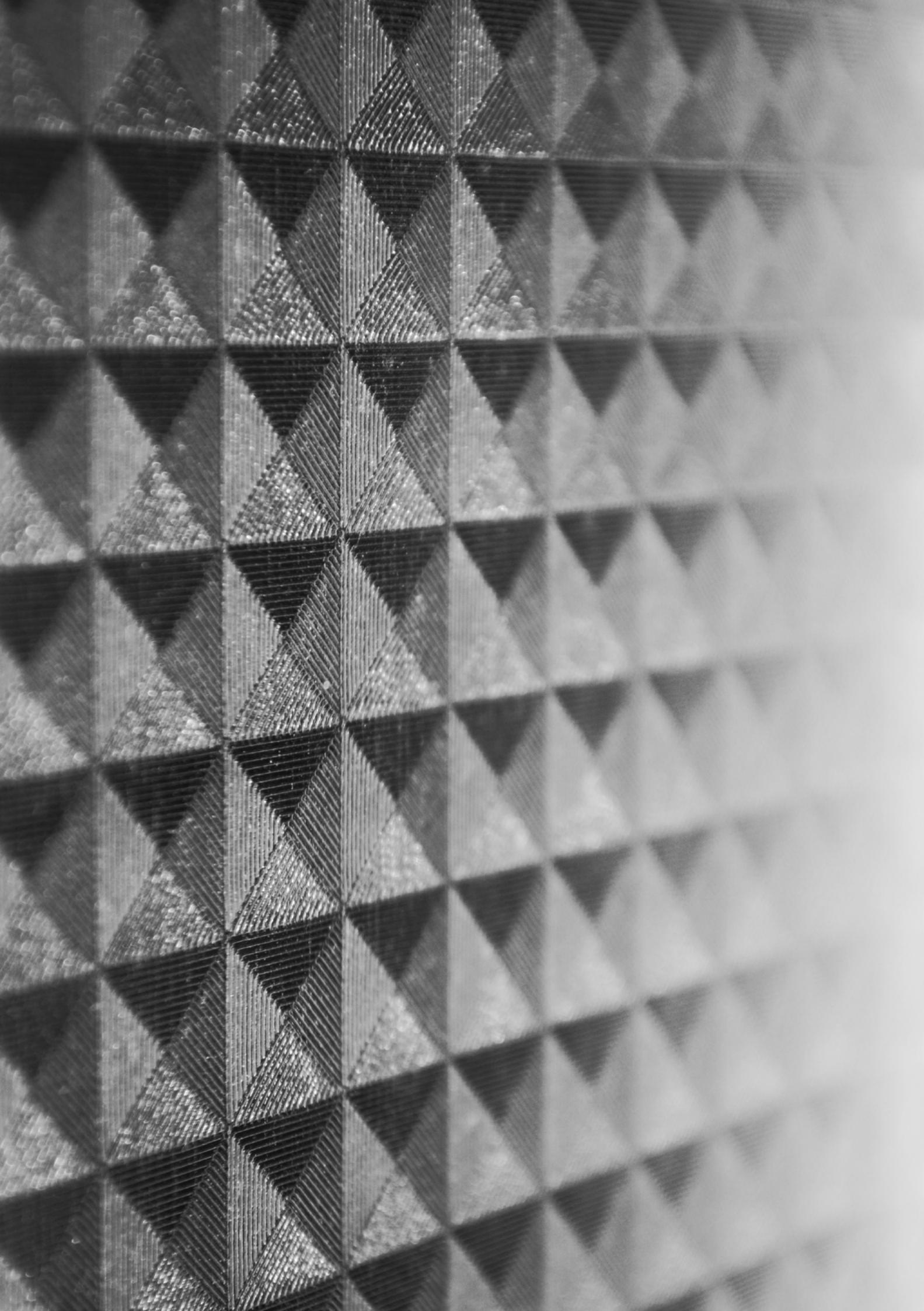
## From vision to collection

These NFT “collectors” have decidedly different profiles. Yet these individuals have participated in shaping the industry from the outset and could see the potential this technology had and the opportunities it offered from the dawn of the ecosystem.

Some decided to build structures that already exist in the traditional world in this new world: such as a museum or a property trust, adapting them to the challenges of this technology. Others, however, imagined totally innovative mechanics, merging social, finance and art collection, etc.

Via this series of profiles, we were also able to gain a better understanding of the relationship that some historical collectors have with the new age of NFTs. A feeling of “It was better before” begins to emerge, with the arrival of new buyers and speculation that is increasingly present.

These experienced collectors also revealed that, in general, they felt it was more difficult for them to track the entire market as they could previously. In fact, this industry that was still on a human scale in the past has turned into a gigantic global market exceeding \$10 billion dollars in just one year: enough for anyone to lose their bearings.



# Valuing and buying your first NFT

8

# Buying your first NFT

For a beginner in the crypto universe, buying an NFT may seem intimidating. The process is actually a little more complex than it appears at the start and costs can seem scary. Yet this entire process has a reason to exist, i.e. make you the actual 100% owner of your assets without depending on a third party. As a reminder, if a platform offers you the option to purchase an NFT via a bank card, without you having to create a Portfolio on the

blockchain, you don't really possess that asset, it's under the "management" of the platform where you bought it. In other words, they can dispose of it as they like without your agreement.

The purpose of this guide is not to help you buy your first NFT but to give everyone an idea of the journey required to acquire an NFT for an individual making their first steps in the cryptocurrency universe.



First you need to create an account on one of the platforms listed below (there are lots of them)

Then you need to fund the account using your bank card or via bank transfer. Once the funds are in your account you can then buy the cryptocurrency you will use to purchase NFTs (ETH, MANA, SAND, TEZOS, etc.).

Note that not all platforms allow you to buy every type of cryptocurrency.  
Do your research before you create your account.

⌚  
Technical fees (gas fees) when sending currency in particular on Ethereum

⌚  
Variable transaction fees when buying cryptocurrency depending on the blockchain



Once you are set up you just have to transfer the cryptocurrency to a so-called "non custodial" wallet to use it on NFT marketplaces.  
(see names below)

If you don't have it yet, simply install the plug-in on your browser and be guided through the installation process.



METAMASK



Trust Wallet

Congratulations! You've just bought your first NFT! Although the process doesn't require advanced technical knowhow, it's still intimidating for a new arrival, especially in a world where we're used to buying any item on the Internet in a few clicks.

Making a purchase has been simplified as far as possible, whether on the Internet or in a shop with contactless payments. But the NFT purchasing process differs considerably from this hypersimplification of online buying that we've seen over recent years.



Depending on the marketplace, you'll be able to purchase the NFT directly or make an offer at the price you think is right.

Technical fees (gas fees) during the purchase of the NFT (independent of the marketplace)

Buy now      Make offer



There is a wide variety of NFT marketplaces. The best known is undoubtedly OpenSea, which was one of the first and is the most generalised.

Once on opensea.io simply connect your "Web 3" plug-in (see previous stage) then navigate the marketplace to identify the NFT you wish to buy.



OpenSea

SuperRare

THE SANDBOX



Decentraland

makersplace



KnownOrigin.

# Choose your first NFT well

There is no “right” way of buying an NFT. The only thing that matters is buying an asset that meets your needs. Do you want to buy an asset for its speculative value? To use it in a project? Because the work resonates with artistic sensitivity?

## Find out about the project

We can't tell you which NFTs to buy or not to buy, but we do want to share some good practices in terms of the checks to be made before any purchase.

Although this point is anything but obvious, is it crucial to take the time to assess whether the project is promising:  
Is it different from other comparable NFT projects?  
Is it truly innovative?  
Does the team behind the project seem capable of delivering the end product?  
What is their background?  
Is this their first project?  
Does the economic model seem viable in the long term?  
Does the economic model make you think of a Ponzi type pyramid model?  
Is the first function of the project to generate a quick profit for its creator (“Money Grab”)?

## Ask yourself questions about the actual asset

Within the framework of a speculative investment, it is advisable in any case to assess the usage value of the asset:  
Does the asset have a function?  
What is its function in absolute terms?  
What is its function within the framework of the project?  
What makes this asset different from the other assets of the project?

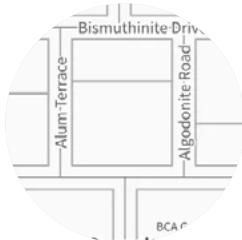
## Know how to read the market and remain impartial

It is advisable to be aware of certain practices on the markets to better understand the trends and make the right decisions without letting yourself be swayed.

- Wash trading: market manipulation is not a new phenomenon, it's difficult to detect and requires reliance on specialist players to identify prices or volumes that are artificially inflated.
- Bots: there is a very large number of active robots in the markets, they can only be identified by observing the volume of their interactions. It is not uncommon for almost all bids on a collection to be placed by robots. These bids are most often completely unrelated to the reality of the market.
- Overspeculation: trends come and go, sometimes extremely quickly. A project posting 5 or 6 figure growth is not unusual but does not necessarily augur a promising project over the long term.

## Value in dollars or cryptocurrency?

Almost all NFTs are bought using cryptocurrency, the value of the asset can go up in terms of crypto but the crypto value may fall at the same time. This is why predicting the value of NFTs is an extremely complex exercise.



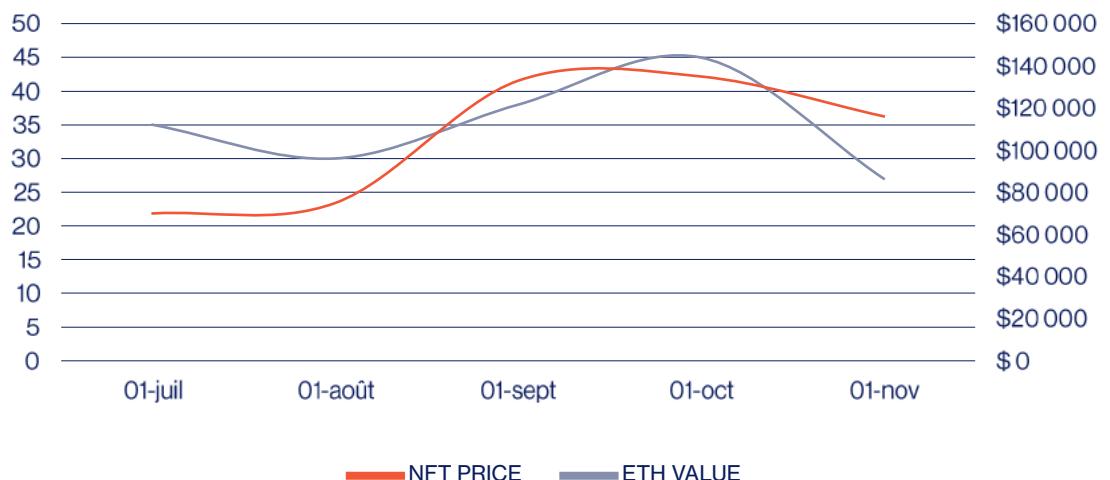
### Example

#### 3 Fault Line – CryptoVoxels

The lots in CryptoVoxels are generally traded using the ETH (Ethereum) cryptocurrency. The ETH value changes over time as with any cryptocurrency.

*	01-Jul	01-Aug	01-Sep	01-Oct	01-Dec
ETH price	\$2,000	\$2,500	\$3,500	\$3,000	\$4,300
Price of asset in ETH	35	30	38	45	27
Price of asset in USD (result)	\$70,000	\$75,000	\$133,000	\$135,000	\$116,100

\*artificial values given for information



Everyone should define the basis on which they will evaluate the price change of an asset and any resulting profits. In the context of this report, profit has been calculated on the basis of the dollar price.

# How is the value of an NFT estimated?

There is no ‘right price’ for an NFT, there is the market price at a time T which may seem right or not.

Since May 2020, NonFungible.com has been the leading provider of NFT estimates, specifically with the valuation of some of the largest NFT portfolios in the world: \$Whale, Metapurse, Republic Realm and many others. We would like to share some of the main challenges connected with the valuation of NFTs here, based on our experience:

## #1 | A young market

The NFT market began less than 5 years ago and has experienced extremely strong growth since the outset. It is not necessarily possible to identify recurrent reasons over time, in a short period punctuated by highly fluctuating market trends.

## #2 | As many methodologies as there are types of assets

Valuing an NFT is not like valuing a collectable car or a property. Valuing NFTs is more in line with valuing all the items you have, from your car to your keys through to your household appliances. So, there is no single methodology that makes it possible to value all NFTs in the same way. Each NFT has its specific features, its own liquidity, attributes that make it more or less rare and, potentially, a usage that will contribute to increasing its value.

## #3 | Very high volatility

NFT markets are subject to hype phenomena more than ever, trends that are sometimes very specific that may have a dramatic impact on the value of certain assets. Therefore for a precise valuation it is required to take into consideration the hype and transience phenomena for each type of asset.

## #4 | Sometimes non-existent liquidity

On the other hand, some of the rarest and most precious assets (specifically 1/1s) present only little or no liquidity on the markets. In an ever changing market, based on fluctuating cryptocurrency prices, these exceptional assets are among the hardest to estimate the value of.

## #5 | The lack of correlation between supply and demand

This is not a new thing, sellers and buyers do not generally value their assets in the same way. The “Floor price” represents the minimum price at which an owner wishes to sell an asset. This price does not necessarily reflect the actual market value of the asset, specifically on a market as speculative as NFTs. In parallel, offers made on assets (for sale or otherwise) do not often reflect the market value of the asset but an attempt to obtain the asset at a good price. It should also be noted that most bids on NFT marketplaces are made automatically by bots.

## #6 | Outliers

In statistics, an “Outlier” is an observation (sale) that is out of step with the rest of the market. A sale 10x above or below the average price of this range of assets, with no apparent reason is an outlier.

In some cases, these outliers can be explained by technical reasons, DeFi, loans, etc. In others, these outliers can be attempts at market manipulation purely and simply. In all cases, sales that could skew the final result should be ruled out.

## #7 | Market manipulation

Market manipulation is a phenomenon observed in all types of markets. In the NFT industry, it should be recalled that performing a transaction on the blockchain (Ethereum) generates technical costs (gas). So, creating “false” transactions to falsify a market requires having solid financial reasons.

The motivations behind market manipulation can be numerous:

- To give an impression of success and volume to a specific project in order to make it appear at the top of the rankings.
- To buy a particular type of asset at a price above the current market price in order to try and sell your other assets on the basis of this fake market history
- On platforms offering a reward for the number of transactions performed, it was observed that the volume of fake transactions exploded.

The teams from NonFungible.com have published a detailed report on the state of Wash Trading and market manipulation in 2021. This report is available at the following address:

<https://nonfungible.com/subscribe/nft-market-safe-practices-2021>



# How do I sell NFTs?

# Selling techniques

There are several ways to sell your NFTs. The selling techniques may vary depending on the type of NFT, from art, virtual land or domain names, etc. We describe a range of selling methods used in 2021 below, from the most common to the most original.

## Open Editions

'Open Edition' selling is a system often used in the world of Crypto Art. It involves putting an infinite number of editions up for sale for a limited period (generally a few minutes) at a fixed price.

This method is mainly used to ensure mass distribution and so that a large number of buyers can benefit from the work.

On the other hand, according to the number of editions created during the sale, this system tends to see a drop in value of the assets on the secondary market as supply is higher than demand. This type of sale is less and less common for this reason.

## Limited Editions

Unlike Open Editions, limited edition NFTs have a fixed number of editions.

Generally the price will be higher when the number of editions is very limited. The more common the asset, the lower the price.

However, editions numbered #1 will always have a higher value than the others.

This approach is used for both works of art and collectable assets (NBA Top Shot and Sorare, etc.)

## 1/1

Although by definition every NFT is 'unique', it is important to understand that they may form part of a series. '1/1s' also known as unique editions are only created as a single copy and are not part of any series. Bored Ape Yacht Club or CryptoPunks are not considered 1/1s. 1/1s are generally put on sale via an auction system and never for a fixed price.

## Silent auction

Silent auctions are auction sales where each participant indicates the amount they wish to pay for the work in secret. The work goes to the highest bidder at the end of the time specified. Nobody knows the amount of the other bids at the end of the sale.

This system is relatively rare in the world of NFTs and mainly used in the art segment.

## Dutch auction

The selling price of the asset decreases gradually over a given period. The first to make an offer will win the sale.

It should be noted that in certain cases, the seller fixes a reserve price. If the selling price drops to the reserve price, then the sale is cancelled.

The second Decentraland LAND sale was a Dutch auction.

## English auction

This is a 'traditional' auction, the auction price will gradually rise with each higher bid.

The auction ends if the reserve price has been reached and after a certain time defined in advance.

Beeples work 'EVERDAYS: THE FIRST 5,000 DAYS' was sold at an English auction.

## Drawing of lots

For a given period, users can register for a drawing of lots which will give them the right to access the sale true and proper. This selling technique is used to guarantee a fairer distribution among participants, avoiding the predominance of investors or robots.

Depending on the case, the user may or may not choose the asset they buy during the sale, it may also be a random draw.

The Mekaverse collectables project used this system during its sale in October.

## Random draw tickets

This method involves selling lottery tickets (all with an identical appearance) that will give their buyer the chance to create an NFT (by paying

the gas fees only).

It really is a lottery insofar as each ticket does not allow the same type of NFT to be generated, some being rarer than others. Game of Blocks & Matrix World are two projects that have used this selling technique.

### Sale in waves

The principle is to sell small parts of the total stock of assets (fixed and announced in advance), in successive waves. Each wave may be identical or variable in size according to requirements.

The Sandbox uses a specific method of selling in waves whereby a new area of the Metaverse map is put on sale each time.

This technique makes it possible to maintain 'tension' on the market by feeding the secondary market with new assets little by little without submerging it abruptly.

### Pre-registration and application letter

This approach is still fairly underused but offers the guarantee of building a close-knit community, seriously committed to the project and, to some extent, avoiding overspeculation in respect of the assets.

The principle consists in asking everyone to pre-register for the sale and to complete a form setting out why they wish to purchase the assets of the project. After reading each application, the lucky chosen ones will have the chance to participate in the sale and purchase the number of assets allotted to them.

Ember Sword is one of the first projects to have implemented this system for its second LAND sale.

### Auction by outbidding

A certain volume of assets is put on sale via an English auction for a given time. Each time a bid is exceeded by another, the bidder receives a percentage of the higher bid and, of course, recovers the funds from their own bid.

This method aims to encourage bids whilst rewarding bidders. The Aavegotchi project used this system for its LAND sale.

### Mixed sales

Today, most sales combine several of these methods to meet the needs of different audiences.

In 2018, the sale of Decentraland LAND was conducted in two stages. During the first sale, all lots were available for sale in the form of English auctions. What was not sold during the first sale was then offered in the form of Dutch auctions a few months later.

In the art segment, 1/1 sales are often associated with limited editions and sometimes even Open Editions, depending on the public that the artist and/or marketplace wishes to reach.

There is no miracle solution for selling NFTs. The methods presented here are only a sample of what is possible and, more often than not, the best solution is a combination of these techniques.



# The profit generated on the NFT market

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★ The reality of speculation on the  
NFT markets

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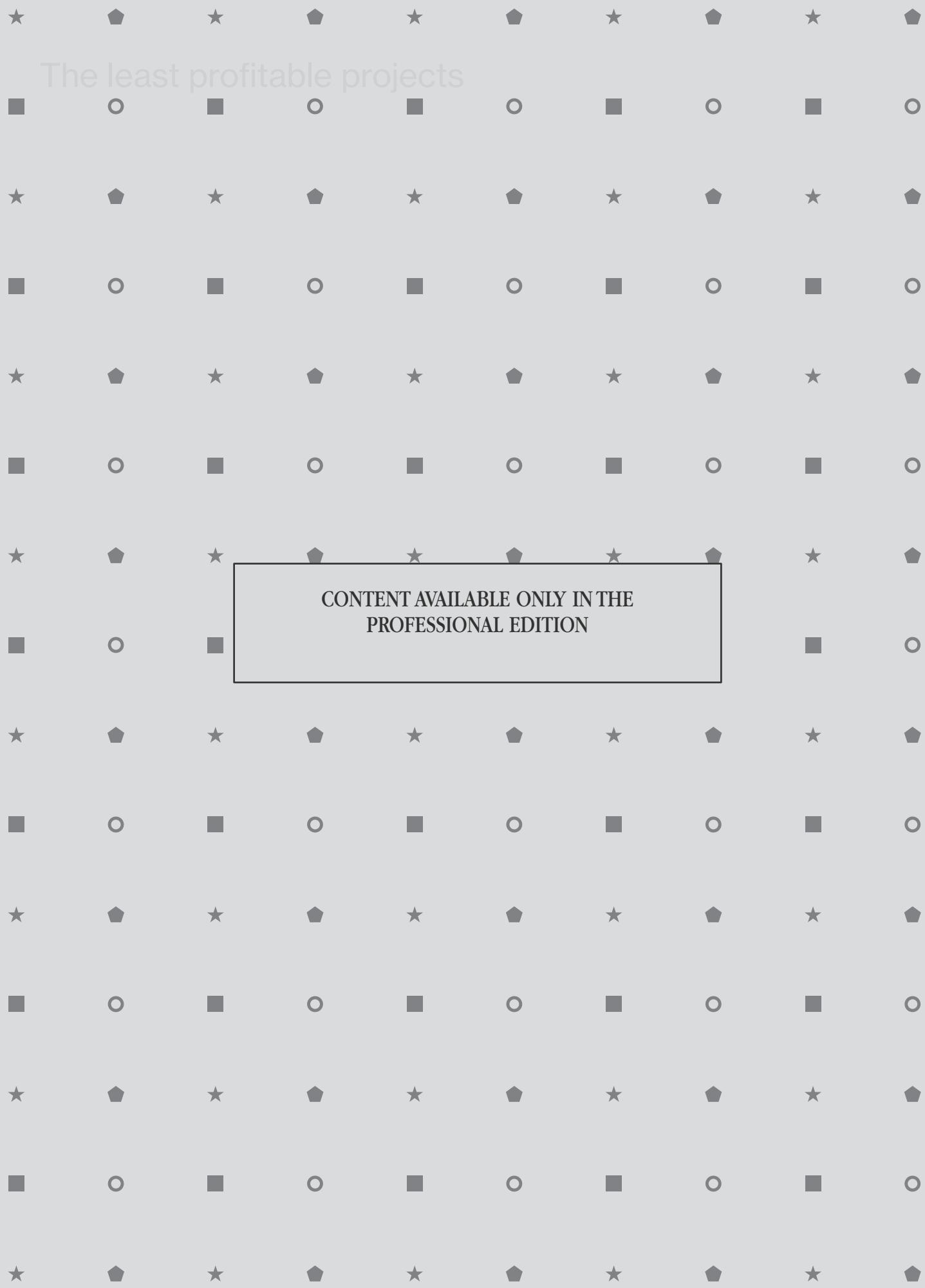
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by segment



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The most profitable  
projects in 2021

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The most profitable sales of  
the year



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★ Wallets that have generated the most profit over the year

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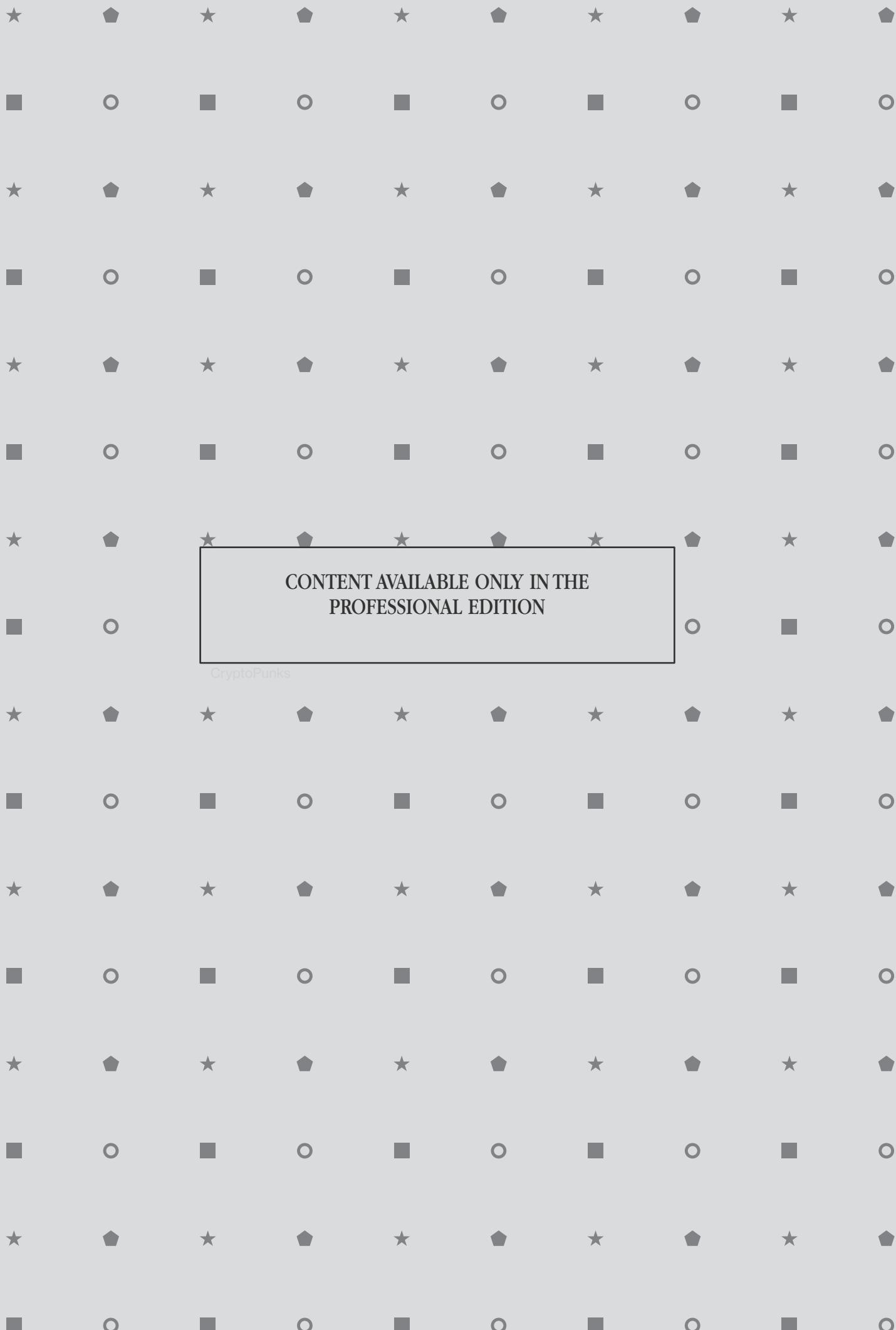
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★ Is NFT trading really within everyone's reach?

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PROFESSIONAL EDITION



# Focus: Art

11

# The Crypto Art market

Art was in many ways the spark that ignited the NFT industry, following the sale of Beeple's "EVERYDAYS: THE 5,000 FIRST DAYS" in March 2021 for over \$69 Million.

Crypto Art is a concept that is anything but easy to grasp. Considered by some as the future and rejected by others as merely expensive jpegs, the least that can be said is that this booming segment raises passionate debates on the very notion of Art.

It is not our intention here to settle the thorny question of what Art is, or even whether Crypto Art is Art.

For this study, we considered any asset and collection with an artistic function of which at least part of the work is recorded on the blockchain as Crypto Art.

Note that collections such as CryptoPunks or Bored Ape Yacht Club were considered as "Collectibles" even though some were sold at Christie's and Sotheby's.

## Key facts and figures on Crypto Art in 2021:

### Market

**\$2,798,220,643\***

Total volume (USD)

**774,307**

Number of sales

\*Includes \$2,500M in volume on Ethereum, \$150M in NFT sales from Christie's, \$100M in NFT sales from Sotheby's and \$6.2M in NFT sales from Phillips (data provided by the auction houses)

### Assets and profitability

**\$3,282**

Average price (USD)

**\$1,212,655,909**

Total profit

**78.76%**

of sales at a profit

**\$153,216,027**

Total loss

### Community

**33.3**

Average holding time (days)

**148,124**

Active wallets

**212,579**

Number of owners

**3,558**

Total number of artists

### Volume of artworks & circulation

**427,165**

New assets created in 2021

**86%**

Percentage of all asset stock that circulated in 2021

**1,639,782**

Total number of assets identified

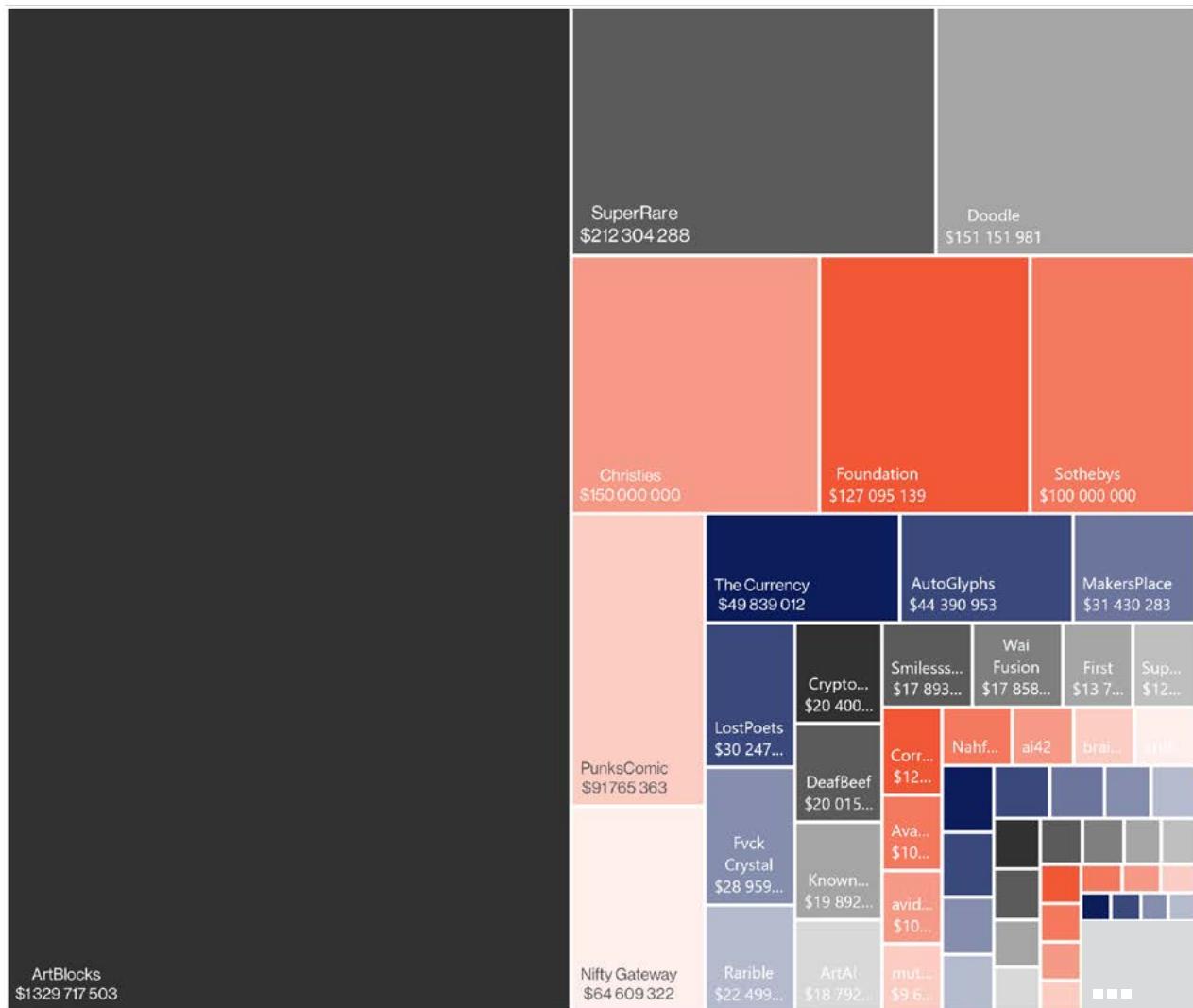


Fig. 28 – Weekly evolution of the volume of profit and loss when buying/reselling NFTs

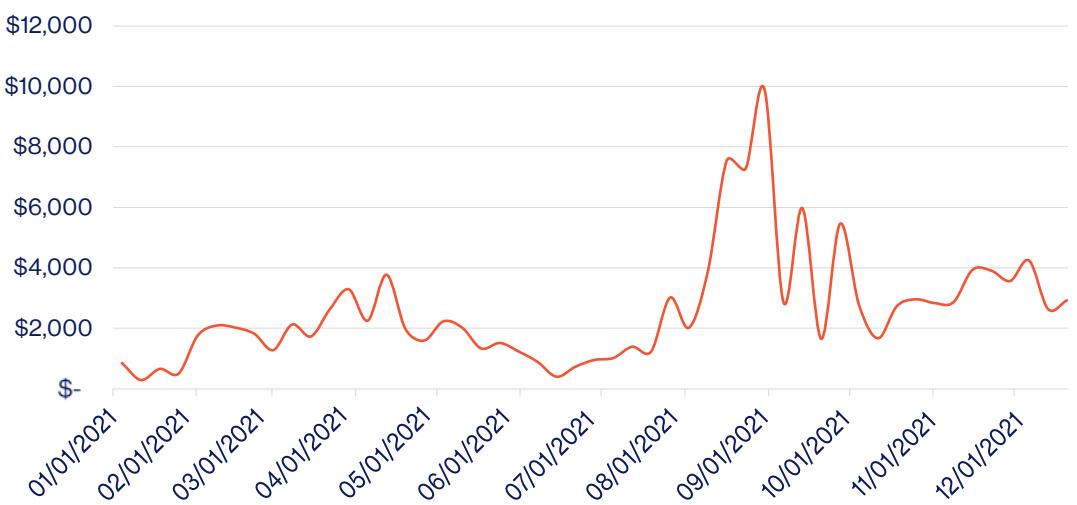
The Crypto Art market is largely dominated by ArtBlocks, with more than one billion dollars traded on this project alone. SuperRare, one of the historic Art marketplaces, is in second place with a much lower volume.

Note that the volume indicated for Nifty Gateway corresponds to the volume of transactions made on the Ethereum blockchain, on the secondary market. Nifty Gateway's primary market sales are "off-chain".

## Average price of a work of Crypto Art over time

The average price of a work of Crypto Art increased almost tenfold over the year, from around \$300 to just over \$3,000, peaking at over \$10,000 in August.

Fig. 29 – Evolution of the average price of a work of Crypto Art



## Evolution of the rate of resale at a loss and at a profit

The rate of resales at a loss remained relatively low in the Art segment in 2021, despite increasing significantly to reach 3,600 sales at a loss in the last week of September. This rate remained anecdotal over the period from July to October, but at the end of the year it can be seen that the curves ended up crossing, implying that there were more sales at a loss than profitable sales over the last weeks of the year.

Fig. 30 – Volume of dollars of profit/loss per week on the secondary market

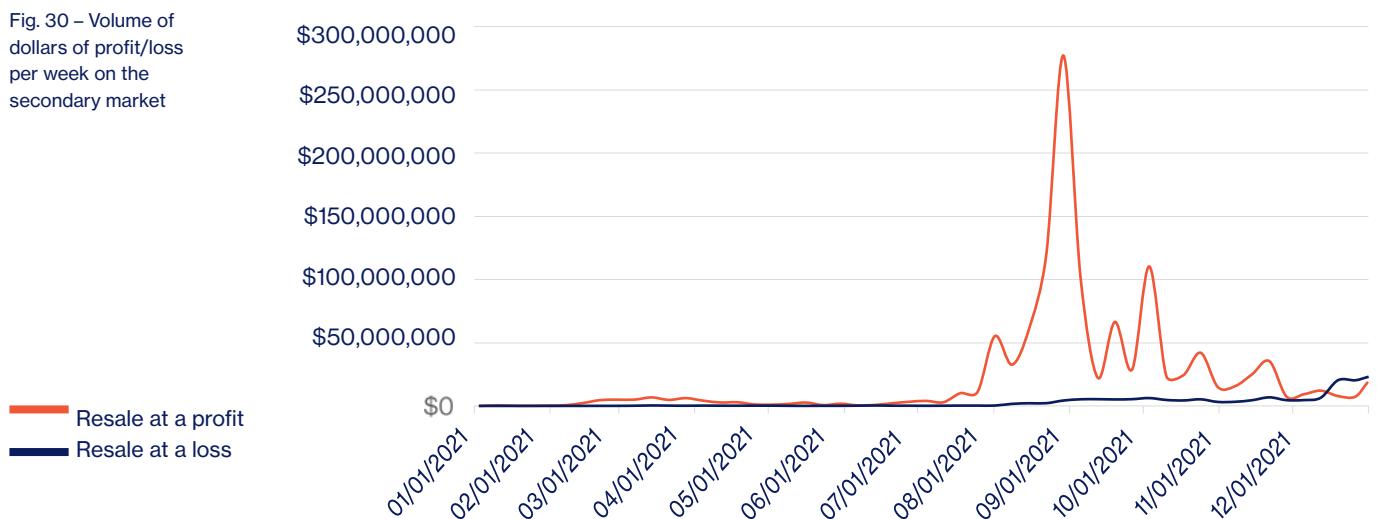
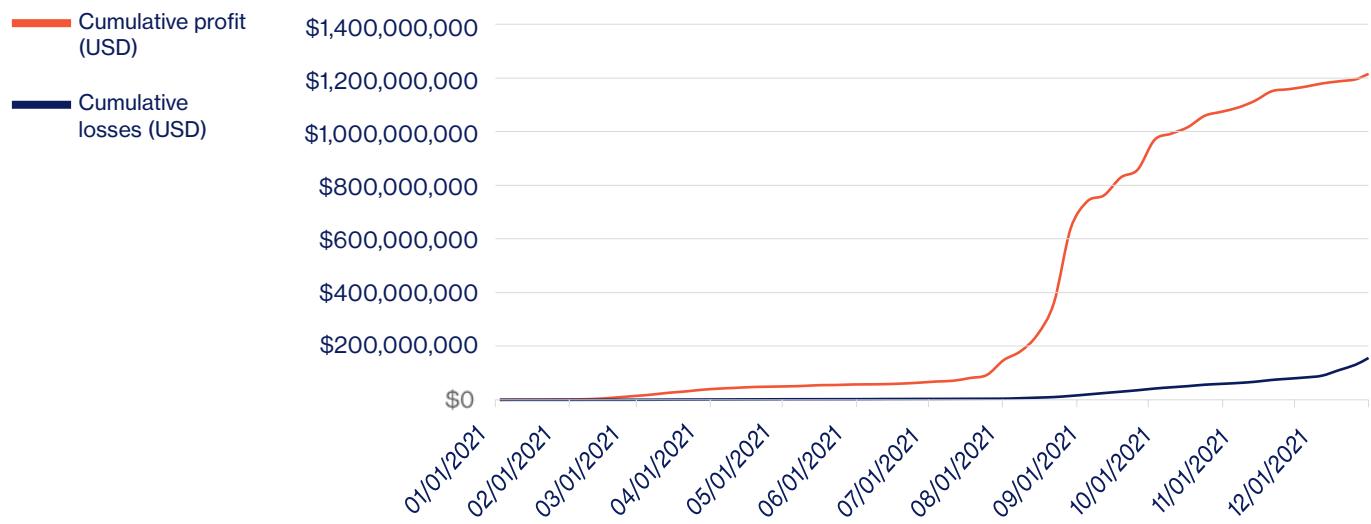


Fig. 31 – Cumulative volume of resales at a profit/loss in the Crypto Art segment

The cumulative profit on the Crypto Art segment exceeded \$1.2 billion, for a total cumulative loss of \$153 million when reselling. A very significant shift in the market can be seen in August, when the cumulative profit increased by more than 550 million in the space of four weeks.



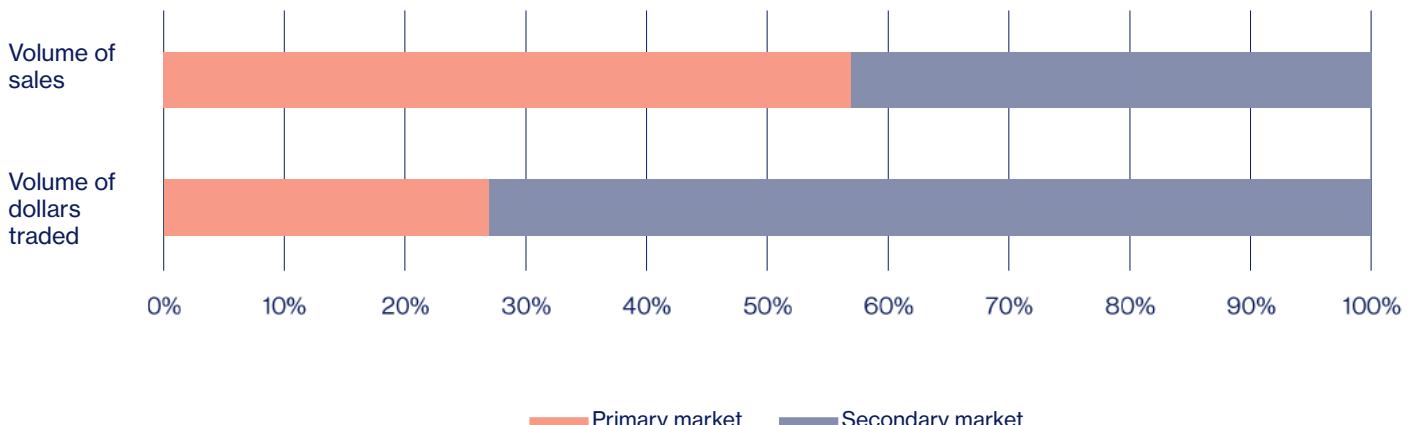
## Primary market vs. secondary market

Fig. 32 – Breakdown of the volume of dollars between the primary and secondary markets

Most of the volume of sales took place on the primary market, with almost 60% of sales, yet the primary market only represented a quarter of the volume in terms of dollars traded.

It is very clear here that assets traded on the secondary market have a higher value, which can be explained in two ways:

- The assets increase in value once on the secondary market
- The art market has been overwhelmed with new low-value assets being produced by artists looking to break into the market



### To put this into perspective: Traditional art versus Crypto Art

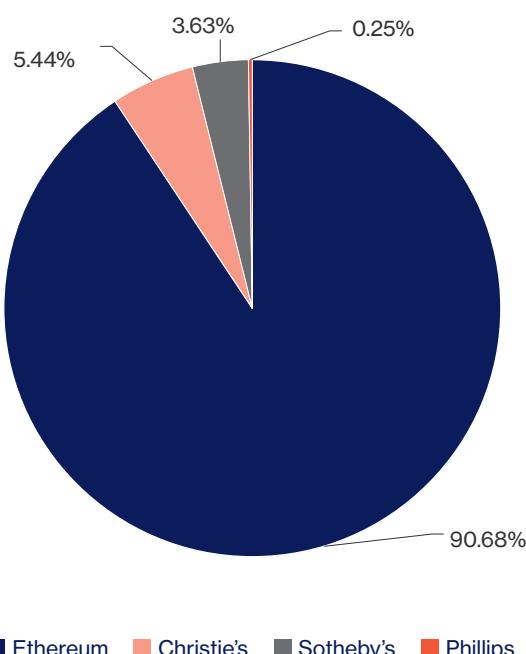
In 2021, the “traditional” art market represented a total of more than \$14.6 billion\* traded against \$2.8 billion for Crypto Art.

NFT Art therefore only represents less than 16% of the total art market to date. This percentage has to be put into perspective, remembering that the technology that allowed Crypto Art to emerge was developed less than 5 years ago.

Of the \$14.6 billion traded, 45% of this volume corresponds to post-war and contemporary Art, underlining the

collectors’ very strong interest in recent works. The craze for Crypto Art and NFTs is clearly part of this trend.

\*Note that this figure corresponds to approximately 70% of the public secondary art market, monitored by our partner Artory. Artory’s database, which contains over 30 million transaction records from auction houses around the world, is an integral part of the annual Art Basel and UBS Global Art Market Report published by the renowned economist Dr Clare McAndrew.



### Auction Houses and Crypto Art

Regarding the invasion of traditional Art market buyers into the Crypto Art market, it can be seen they have managed to make a relatively notable entry and already represent almost 10% (9.32%) of the Crypto Art market via sales, most often conducted off chain.

Fig. 33 – Breakdown of the volume of dollars traded between Ethereum and the main auction houses carrying out NFTs sales.

# What is the strategy of an auction house such as Sotheby's towards NFTs?



**Michael Bouhanna**  
Co-Head of Digital Art  
Sales, Sotheby's

We had the chance to talk to Michal Bouhanna, Co-Head of Digital Art at Sotheby's, and one of the people behind the initiative of Sotheby's Metaverse: the renowned auction house's official NFT sales platform.

*"Sotheby's Metaverse was launched in October 2021 after several months of activity in the NFT Space. We quickly realised that we were entering a market which had already been developed for several years, and which had an audience, its own appreciation of Art, and a whole pool of collectors already in place and totally unknown to Sotheby's traditional market. The relationship to Art and investment are very different there."*

Michael's testimony here echoes the reflections shared by Benoit Couty, founder of the Museum of Crypto Art (see

Auction Houses made their grand entrance into the world of NFTs with the \$69M Beeple sale at Christie's in March 2021.

Since then, other Auction Houses such as Sotheby's have announced a clear development strategy with regard to NFTs. Sotheby's has managed to sell more than \$100 million of NFTs over the year.

Section 7). The Crypto and traditional Art markets live side by side while responding to different codes. Learning the habits and expectations of NFT collectors would be the key to success in entering the Crypto Art markets.

*"With Sotheby's Metaverse, we combine Sotheby's expertise and marketing while adding an NFT experience that is close to what Native NFTs are used to experiencing on other platforms such as SuperRare and OpenSea; for example, the fact of seeing the Alias Names of the sub-bidders and the buyer is an element that has come from the NFT/Crypto world culture."*

Sotheby's tries to bridge the gap between the NFT and the traditional art markets. This takes place through the types of items sold, but also through a purchasing experience and a new transparency that

may seem disconcerting for non-NFT Art collectors. Michael sums up the challenge of creating a unified experience for Art and Crypto Art collectors:

*"The challenge is to satisfy the expectations of NFT collectors who expect a lot from us, while never sidelining our traditional customers, who are very keen to understand the NFT market. We're trying to improve the experience for both of these audiences."*

We ask Michael about their approach to the NFT universe, and on what makes them chose to auction certain types of assets over others. For example, CryptoPunks could be sold via Sotheby's Metaverse. Are they Collectibles or works of art? How does an Auction House like Sotheby's view CryptoPunks?

*"A CryptoPunk is a pure work of art. As soon as there's a historical element attached to the work, it comes under the domain of Art. This is the case for CryptoPunks but also for Bored Apes, even if it's much more recent."*

Michael elaborates on this difference between Collectibles and Digital Art:

*"The boundary between the Collectibles and Digital Art categories is extremely blurred. But there's obviously a major difference with 1/1s: unique works. The way they are listed on OpenSea is very different, it's harder to monitor the market, buyers are often interested in the long term, they have a greater appreciation of aesthetics... the*

*approach with 1/1s is more comparable to a contemporary art collection.*

*Collectibles are still very connected to crypto culture. There are some iconic projects that have their place in art history. Speculation and market movements are integral elements of the work. There is sometimes a market gamification around these projects that can override the artistic or conceptual quality of the actual project. This speculative aspect makes conversations with our traditional clients more difficult; although they're used to price fluctuations in traditional Art, it happens over a longer period of time."*

This is a crucial point of friction that is mentioned with regard to speculation on NFTs. The market fluctuations observed on the NFT markets are in fact more similar to those on the stock markets than on the art market. It can be very difficult for an experienced collector to understand an art market in which trends can vary from one week to the next.

During the conversation, Michael points out another major difference between the NFT market and the physical art market: the time it takes to get the asset. This difference in time and the resulting relationship to the collection partly explains the high liquidity and the very short average holding period of a work of Crypto Art:

*"It's extremely fast to buy and consume the NFT, and it's just as fast to get rid of it, so this increases the number of transactions. With one click on OpenSea, I can buy the artwork, be*

**“It’s extremely fast to buy and consume the NFT, and it’s just as fast to get rid of it, so this increases the number of transactions. [...] In contemporary Art [...] you only get to enjoy the artwork after 3 months.”**

*debited, and receive it, all in the same click. One minute later, I can put it back on sale. In contemporary Art, if you buy a piece from a gallery, the exhibition in which it's displayed has to come to an end, a month goes by, two months, then there are some email exchanges to arrange the delivery of the piece, until at last you hang it on your wall: 3 months have passed. You only get to enjoy the artwork after 3 months and you're already starting to think about the second item on your wishlist.”*

During a vast project to raise their traditional customers' awareness on NFT issues, we ask Michael about the types of collectors who have shown the most interest in this new form of Art:

*“The initial interest we saw, as early as April 2021, came from collectors of conceptual Art. These are art collectors who can easily understand that a work of art is not necessarily something physical, something beautiful, but that it can also be something immaterial. They're comfortable with the idea of acquiring a concept when they collect Daniel Buren, Sol Lewitt, etc.”*

This observation echoes the trend recorded by Artory in 2021, with a predominance of the contemporary art market. Some contemporary and conceptual art collectors already seem open to understanding the concept of Crypto Art.

To conclude, does Sotheby's plan to focus only on Crypto Art or rather to open the Sotheby's Metaverse to other kinds of digital assets?

*“We have 3 categories at Sotheby's NFT: Digital Art, Luxury and Rare objects (for example: the World Wide Web is more of a digital object), and finally Sport, Luxury and Fashion. We don't rule out selling The Sandbox or Decentraland works tomorrow, it's one of the most important segments, so we must be able to share this story with a wider audience.”*



# Pinata



## Your home for NFT Media

Pinata is the first multimedia management hub for creators, developers, and artists in the Web3 space. Created in 2018, Pinata provides users the easiest way to upload, manage and store their content through the interplanetary file system (IPFS) with power and speed. *Our vision is to foster a sense of place for every creator on the internet that is uniquely theirs.* And as more people learn about Web3 and get involved in this space, that's exactly what's happening. #WAGMI #welovetoseeit

If there was ever any doubt about the relevance of NFTs or Web3 space before, 2021 has debunked all of those false alarms. If anything, 2021 will be remembered as the year that solidified the NFT space, with more mainstream brands and celebrities dropping NFT projects and establishing new partnerships.

## Growth by numbers

Our community, in particular, saw amazing growth in 2021. Pinata started with under 10,000 users earlier in the year, and has now grown to more than 100,000 users. As a company, Pinata more than doubled its employee count to keep our engines running at full speed, and we're still hiring for many roles.

Every day, we see groundbreaking activity from our community. In the last few months of 2021, there were over 1 billion requests for content shared on Pinata, with those numbers increasing month over month. We're proud to be powering some of the top NFT marketplaces, projects and creators around the world.

## More to Come in 2022

2022 will be another year of growth and challenges for the NFT world. As more nontechnical users enter the Web3 space, companies will need to help bridge the gap between Web2 and Web3 technologies, making it easier to step into this new terrain. Existing creators and builders will demand better quality experiences and want more control of how they serve their content. We're committed to serving all, so we're scaling for these needs as we continue to build out our team and product.

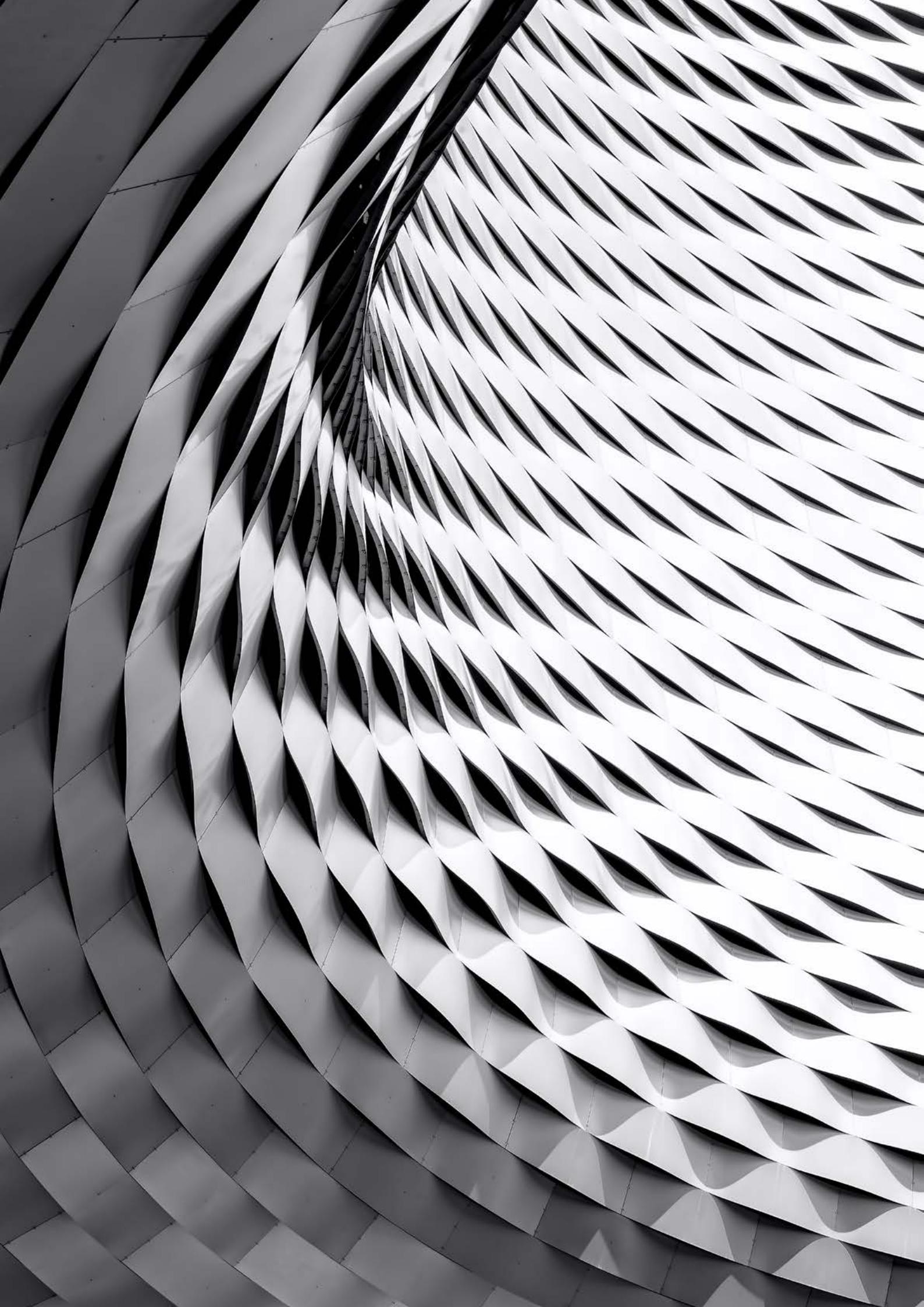
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# Focus: Collectibles

12

# The Collectibles market

In 2021, you have probably seen a Collectible NFT before you even knew what NFTs were. From Jay-Z to Snoop Dogg via Jordan Belfort, countless celebrities around the world have replaced their profile pictures with one of these little characters, thus underpinning the Collectibles trend with the trend of “PFPs”: “Profile Pictures”.

Owning some of these Collectibles has become a sign of belonging to a certain group or social class.

A Collectible is an asset whose main function is to be owned and displayed as part of your collection.

The best known (and first) are the CryptoPunks, whose rapid development in 2021 has given rise to a tidal wave of collections of 10,000 assets around extremely varied themes, from animals to robots, to cartoons and even pixel-art.

## Key facts and figures on Collectibles in 2021:

### Market

**\$8,471,807,117**

Total volume (USD)

**4,500,827**

Number of sales

### Assets and profitability

**\$1,882**

Average price (USD)

**\$3,574,733,293**

Total profit

**76.80%**

of sales at a profit

**\$432,815,281**

Total loss

### Community

**40.9**

Average holding time (days)

**483,948**

Active wallets

**718,888**

Number of owners

**593**

Total number of Collectibles projects

### Volume of NFTs and circulation

**2,408,423**

New assets created in 2021

**64%**

Percentage of all asset stock that circulated in 2021

**6,018,262**

Total number of assets identified

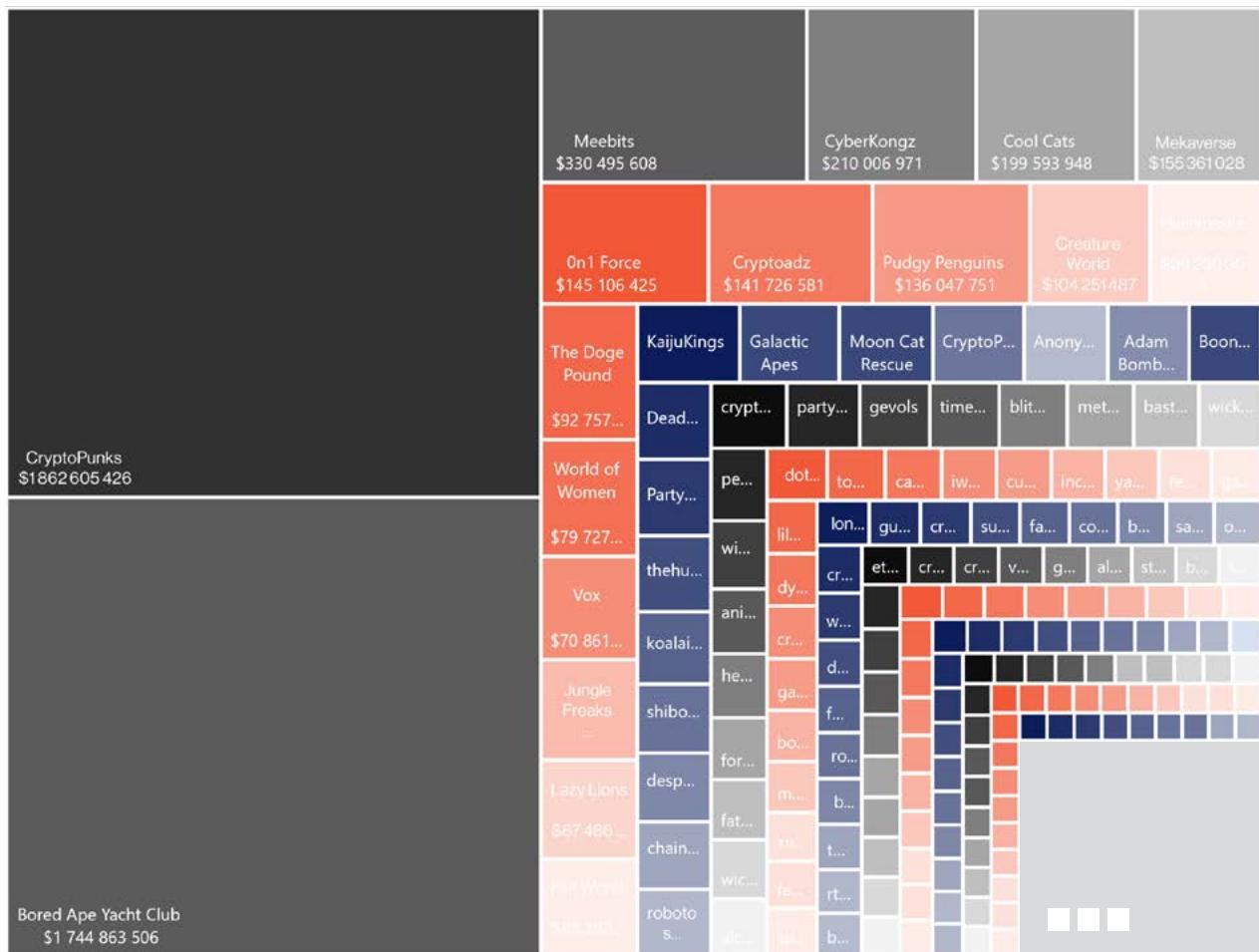


Fig. 34 – Weekly evolution of the volume of profit and losses when buying/reselling NFTs

The two flagship Collectibles projects of the year were undoubtedly CryptoPunks and Bored Ape Yacht Club, which alone accounted for a volume of over \$3.5 billion in transactions, more than a third of the segment's activity. CryptoPunks remains slightly in the lead, but the ranking may well be reversed between the two behemoths of the segment in 2022.

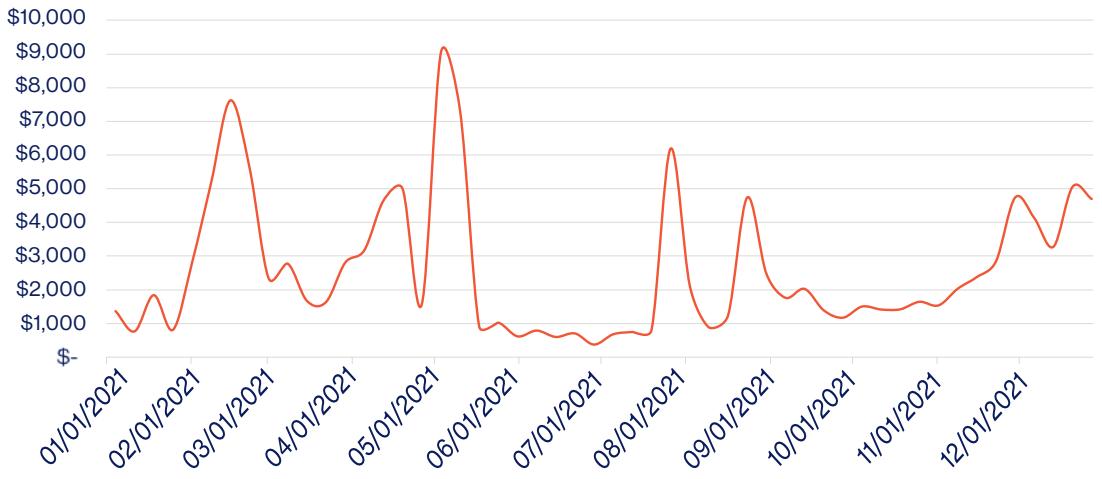
It should also be noted that Meebits, ranked 3rd in terms of volume of dollars traded, was created by LarvaLabs, the studio which is also behind CryptoPunks.

## Average price of a Collectible asset over time

The Collectibles segment is subject to strong fluctuations, with regular peaks in the average price of between \$5,000 and \$10,000 in certain weeks. An interesting trend can be seen in the last quarter of 2021, with a gradual drop in the average value of Collectibles followed by a rise between October and December.

This trend is to be read in parallel with the gradual decline in liquidity of some of the less promising Collectibles collections in the segment. The average price thus seems to have increased following a concentration of the market on the most valued collections.

Fig. 35 – Average price of a Collectible over time



## Evolution of the rate of resale at a loss and at a profit

Collectibles trading remained a particularly profitable activity throughout the year, and more specifically in the second half of 2021. The presence of several peaks in August, October and then at the end of November should be noted. These peaks were most often due to the launch of new Collectibles projects which led to speculation immediately after their launch.

The resale rate at a loss was not impacted by these peaks, indicating that users prefer to keep their assets rather than resell them at a loss.

Fig. 36 – Volume of dollars of profit/loss per week on the secondary market



Fig. 37 – Cumulative volume of resales at a profit/loss in the Collectibles segment

In terms of cumulative profit/loss, there was a very clear peak in profit between August and September. The total volume of losses tended to increase significantly at the end of the year, although it remained broadly stable throughout the year.

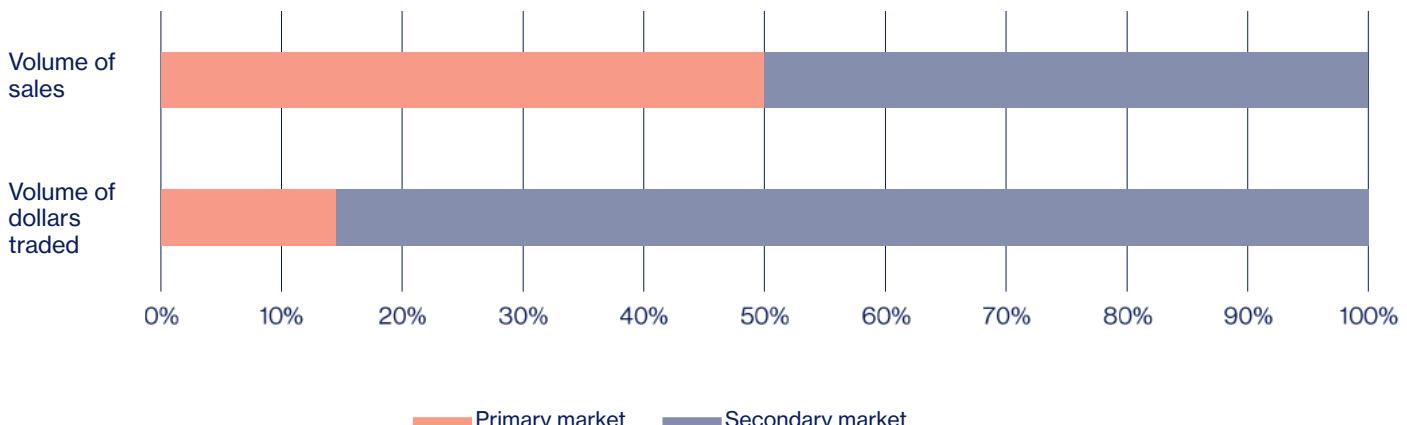


## Primary market vs. secondary market

Fig. 38 – Breakdown of the volume of dollars between the primary and secondary markets

The Collectibles segment was largely dominated by its secondary market, with nearly 85% of the volume of dollars traded. This trend contrasts particularly with the equilibrium observed in the volume of sales, where the primary and secondary markets are in equilibrium.

Similar to the art market, the difference between the volume of sales and the volume of dollars traded in the secondary market suggests that assets tend to appreciate in value in the secondary market.

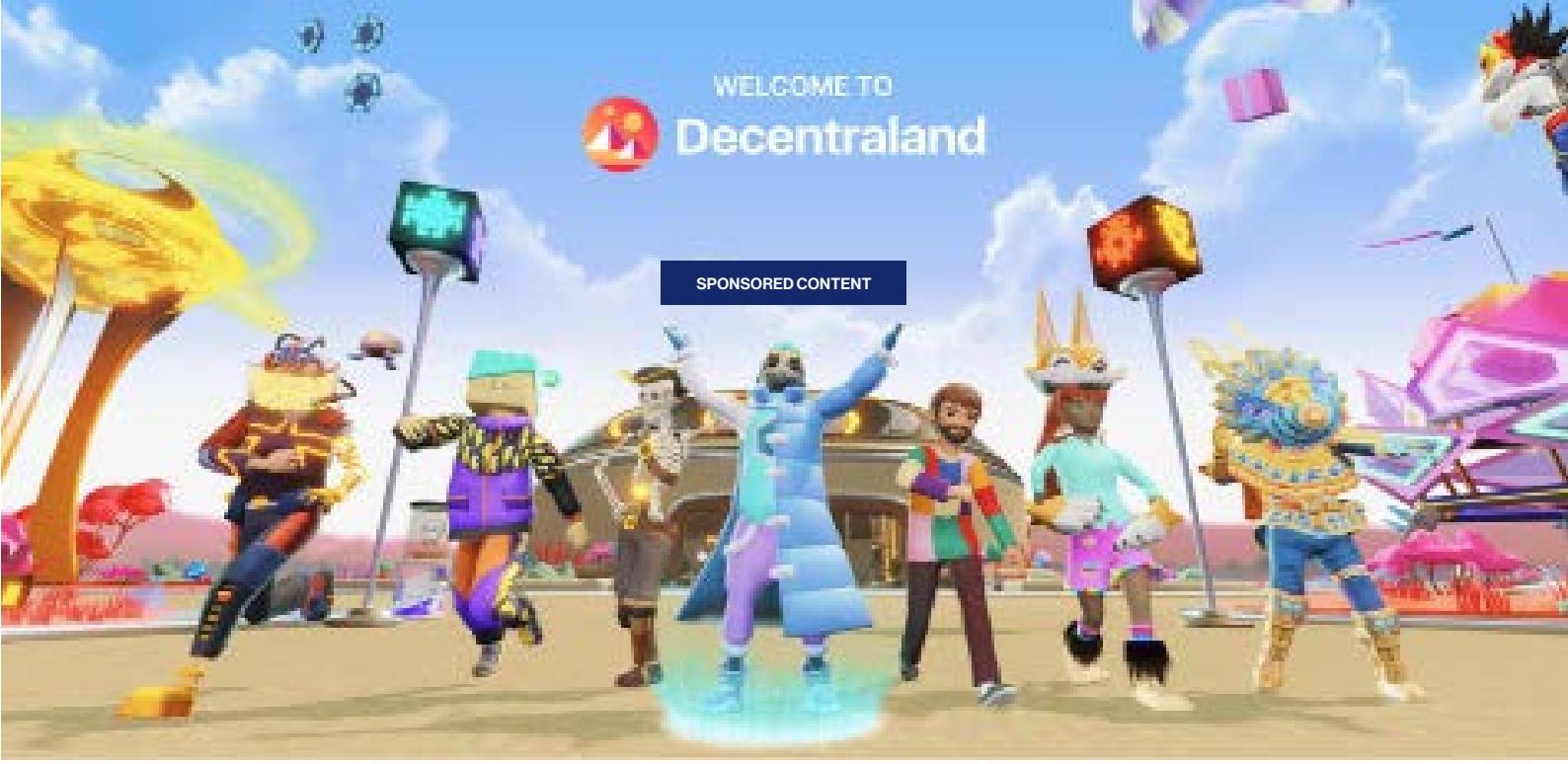




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Decentraland is a virtual social platform, built on the Ethereum blockchain. Every day, users enter the world to meet up, play games, attend live events, trade in the marketplace, engage with brands, visit galleries and much more.

The world is run on the principles of decentralization, meaning that there is no central point of ownership - Decentraland is owned and governed by the people who use it every day.

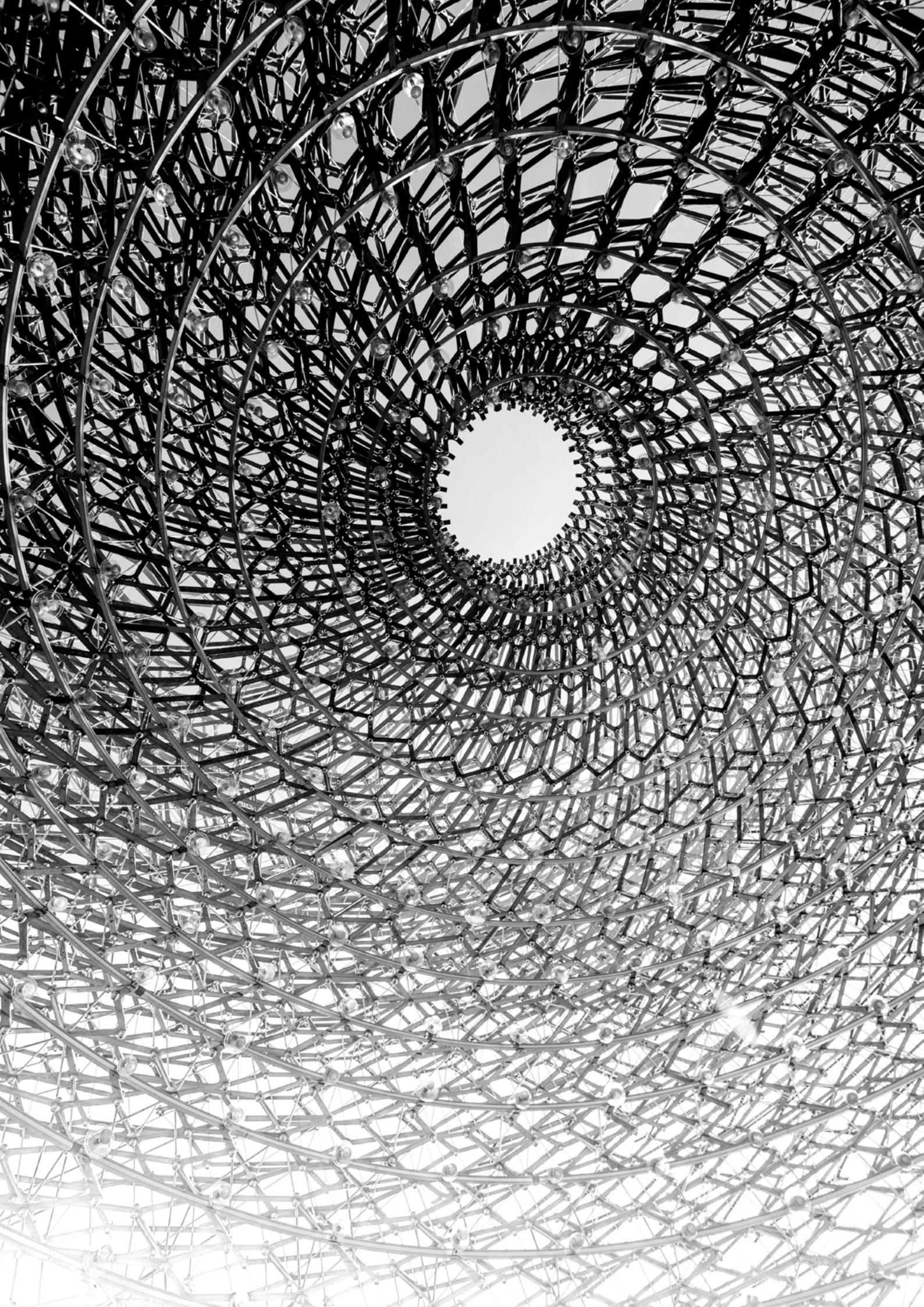
This community is also an active and collaborative group of creators, building scenes, games and other interactive experiences for all to enjoy.

Truly, when you become part of Decentraland, the world is what you make it.



JOIN THE COMMUNITY





# Focus: Gaming

13

# The Blockchain Gaming market

Crypto-Gaming has been part of the NFT landscape since the very beginning, but it was only in 2021 that it really took off, with the explosion of the “Play to Earn” trend, more specifically with the Axie Infinity game. Blockchain games can be subdivided into strategy games, card games, management games, etc. We will not go into this level of detail for this study, and will analyse trends in the blockchain gaming segment as a whole.

A blockchain game is defined as any video game experience whose main assets are stored on a blockchain or a network directly dependent on the blockchain (Side-chains, etc.).

A blockchain game can be played from a mobile, PC or any other device. The blockchain is merely a technological base for the gaming experience, and opens up new possibilities such as the monetisation of the game for the players, the real ownership of the assets and the decentralisation of game governance.

## Key facts and figures on Blockchain Gaming in 2021:

### Market

**\$5,177,192,804**  
Total volume (USD)

**20,986,532**  
Number of sales

### Assets and profitability

**\$207**  
Average price (USD)

**\$247,634,943**  
Total profit

**73.68%**  
of sales at a profit

**\$42,592,925**  
Total loss

### Community

**67.1**  
Average holding time (days)

**1,880,614**  
Active wallets

**1,722,714**  
Number of owners

**112**  
Total number of blockchain games:

### Volume of NFTs and circulation

**15,719,929**  
New assets created in 2021

**94%**  
Percentage of all asset stock that circulated in 2021

**21,156,291**  
Total number of assets identified

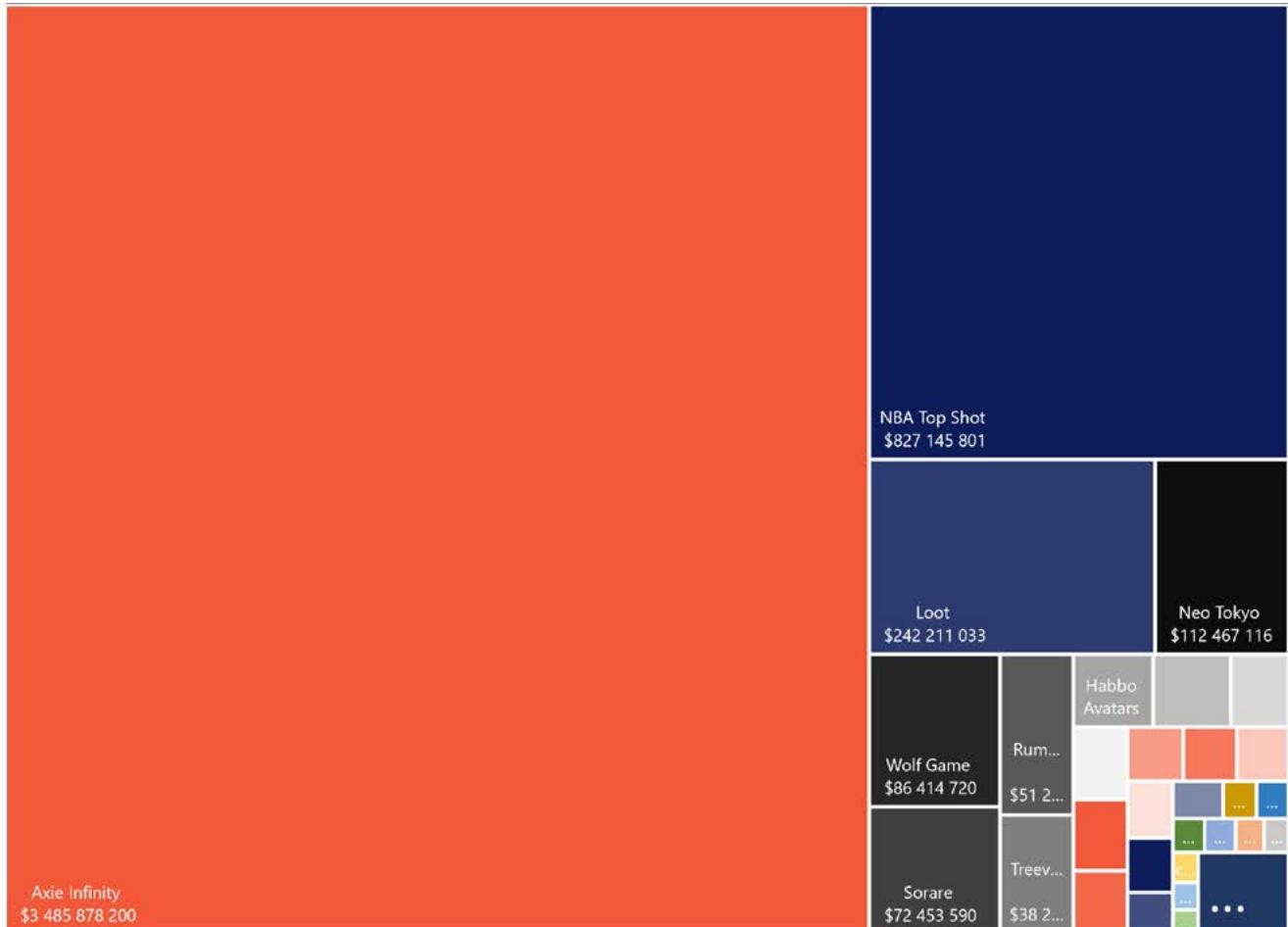


Fig. 39 – Breakdown of segment volume by project (USD)

Axie Infinity is clearly the gaming project of 2021, accounting for nearly 2/3 of the Blockchain Gaming industry on its own.

It should be noted that the volume of Sorare recorded here only corresponds to its activity on the Ethereum blockchain, since the project opted for Starkware technology during the year.

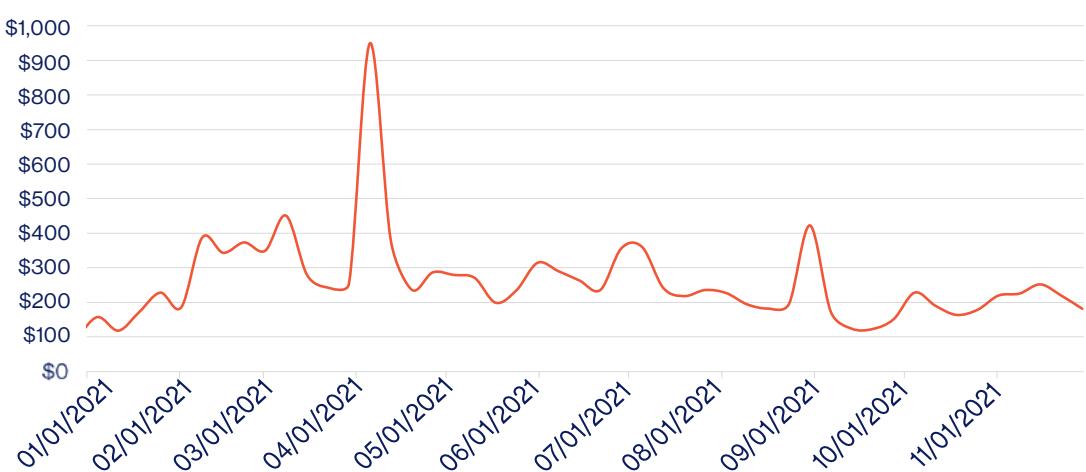
NBA TopShot, the flagship project of the beginning of the year, ranks second with a volume of nearly 800 million dollars traded.

## Average price of a Blockchain Gaming asset over time

The average price of a Blockchain Gaming asset remained relatively stable over the year, apart from a major peak of nearly \$1,000 in April.

The year started with an average price of \$150. The price remained above the \$200 threshold for more than 6 months and bottomed out at \$122 at the end of September.

Fig. 40 – Average price of a Blockchain Gaming asset over time



## Evolution of the rate of sale at a loss and at a profit

Following the major peak in August/September, the curves very quickly converged and then the trend was reversed in the first weeks of December. 2021 ended with a volume of resale at a loss approximately three times higher than the rate of resale at a profit.

This trend can also be seen in the volume of cumulative profit/losses, with a gradual acceleration in the rate of sales at a loss from the middle of the year against a net stabilisation of the cumulative profit over the last quarter.

Fig. 41 – Volume of dollars of profit/loss per week in the secondary market

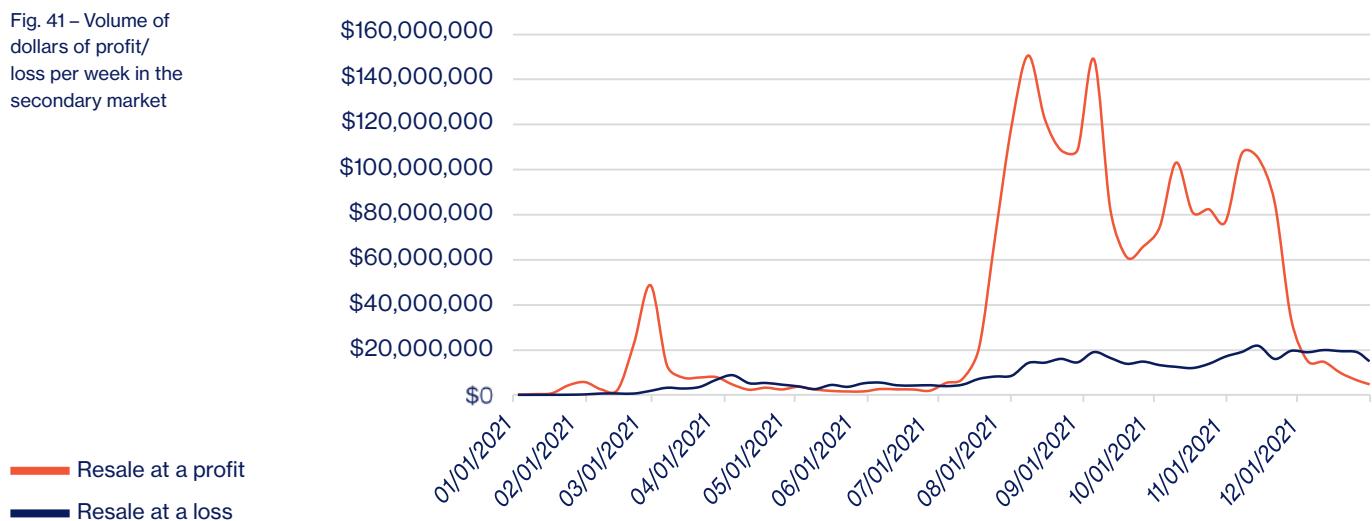
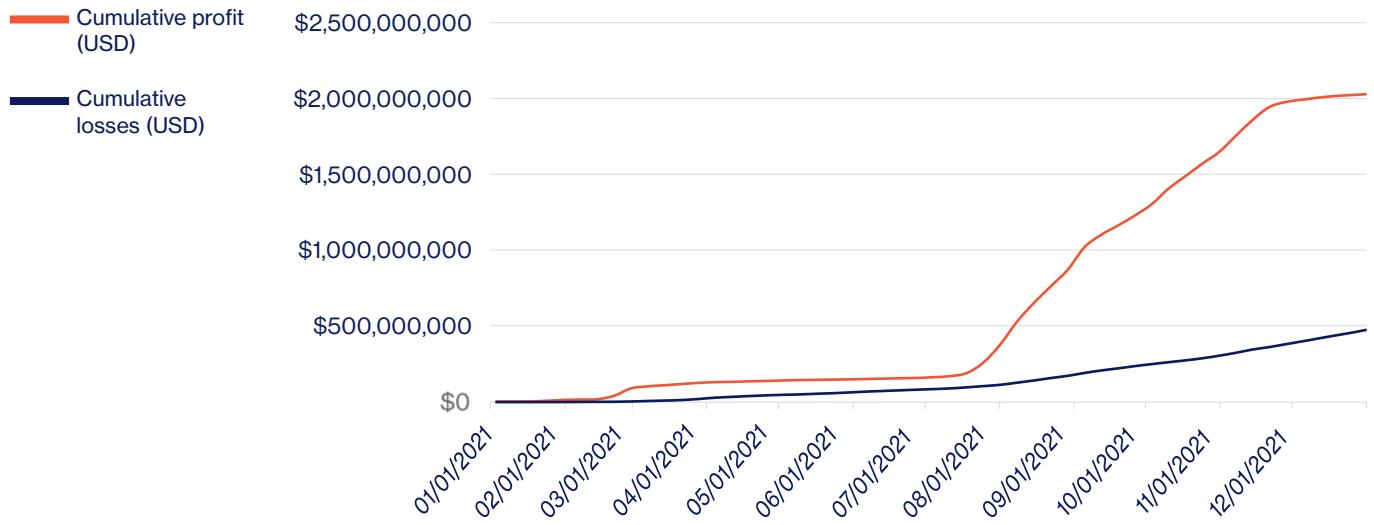


Fig. 42 – Cumulative volume of resales at a profit/loss in the Gaming segment

It can be concluded that all the people who suddenly bought large volumes of assets at considerable prices in August gradually realised that they could not quickly generate profit on a resale. What we observe over the last quarter corresponds to a gradual “liquidation” of the stock of assets purchased between August and September.

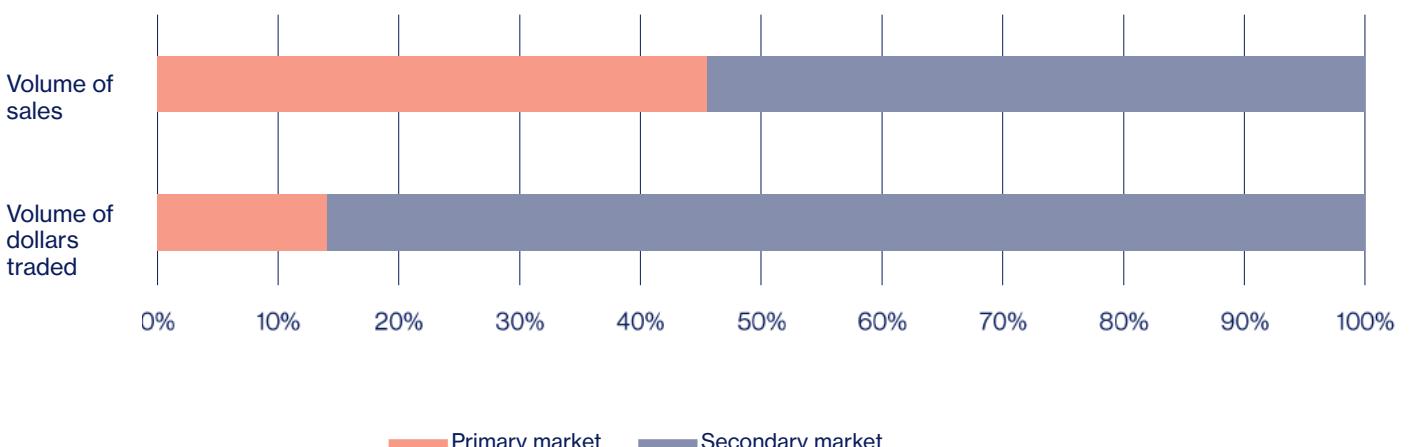


## Primary market vs. secondary market

Fig. 43 – Breakdown of the volume of dollars between the primary and secondary markets

The secondary market represents just over half of the segment's activity in terms of volume of sales, against more than 85% of the total volume in the secondary market.

Like most other segments, it seems that the assets rapidly appreciated in value in the secondary market.



## To put this into perspective: The Gaming industry vs. Blockchain Gaming

Although it is still too early to compare the performance of the “traditional” Gaming segment with Blockchain Gaming, it is important to put the performance of this segment of NFTs into context.

According to the report published by Mordor Intelligence, the global Gaming market was estimated at around \$173.7 billion in 2020, while this market was around \$151 billion the year before. According to their predictions, the Gaming market should exceed \$300 billion by 2026, which would represent a growth of approximately 9 to 10% per year.

With a market of just over \$4 billion in 2021, NFT Gaming to date would account for only 2.18% of the total Gaming market in 2021.

If we consider the current growth rate of the two segments, NFT Gaming is expected to account for nearly 10% of the entire gaming industry by 2026, with a market that could exceed \$25 billion.

\*Source: <https://www.mordorintelligence.com/industry-reports/global-gaming-market>

# Lessons learned from Blockchain Gaming that marked 2021: Axie Infinity



**Aleksander Larsen**  
Axie Infinity Co-founder

It has been so successful in some countries that parallel economies have started to be formed, with the establishment of “Scholarships”, in which owners of in-game assets lend some of their accounts to players around the world, thus sharing the income generated.

Aleksander Leonard Larsen, Co-founder and COO of Axie Infinity agreed to answer our questions and share his thoughts on the current challenges of Blockchain Gaming.

*“I think Blockchain Gaming, spearheaded by Axie Infinity, is being taken very seriously at this stage. People are now aware that games can be created using blockchain technology. This opens up new design spaces. Now, with the advent of “Play to Earn”, people are seeing that there’s a lot of money in the industry, and a lot of hype. There’s been something akin to a “Cambrian explosion” of games that are still in the testing phase but haven’t been officially released, so I’m optimistic for the coming years.”*

Axie Infinity is far and away the game that brought Blockchain Gaming to the forefront. Its dazzling success made the general public realise that Blockchain, NFTs and cryptocurrency can be used to deploy complex game mechanics, in which the user can generate a form of income.

Given the performance of Axie Infinity and the entire Blockchain Gaming segment over the year, his optimism is understandable. Aleksander also returns to a key concept that made Axie Infinity successful and opened up new perspectives for the Gaming industry: “Play to Earn”.

In his opinion, is “Play to Earn” the future of Gaming?

*“Opinions around ‘Play to Earn’ will change as we move on to more mature games. In Axie, for example, we aim to offer better quality games and for them to become more a case of ‘Play and Earn’. With ‘Play and Earn’, the emphasis is generally placed on the extraction of value, there is a mercenary aspect that is a little too present.*

*With ‘Play and Earn’, people come to play and can earn something at the same time. Generating income is more of an added value than the primary goal. People start playing a game for entertainment and might enjoy it all the more because they can ‘earn’ something while playing. But this is not about replacing jobs.”*

**“For this kind of economy to remain healthy, there must be problems to be solved by the community.”**

This subtle difference between “Play to Earn” and “Play and Earn” is fundamental. Gaming as Aleksander describes it is above all a fun experience, which also offers a form of income. Motivation #1 must still be based on the gaming experience and not on “grinding” to generate income.

Aleksander develops this concept a little further and introduces a notion of working together:

*“For this kind of economy to remain healthy, there must be problems to be solved by the community. You can find problems to solve in video games. People need to work together to solve these problems. This kind of partnership could be the source of new jobs, at least these are the avenues we are currently exploring.”*

This concept is somewhat reminiscent of one of the fundamental principles of Blockchain: mining. Of course, the concept must be widely adapted in the context of gaming, but the very principle of mining on a blockchain is the same as solving problems that bring value to the entire ecosystem.

In the blockchain context, these are machines that solve eminently complex cryptographic problems. In a video game, it is essential that it is always humans who solve these problems:

*“One of the main challenges we face is to make sure that real human beings are playing the game. Each human adds a certain value to Axie Infinity, and this value can consist*

*in chatting between players, talking to friends, creating content, organising tournaments, participating in building a network around the game...”*

In general, all of the actions that players can take inside and outside the game will bring value and contribute to the development of the game.

To conclude, the co-founder of the game emphasises the issues related to the launch of a cryptocurrency in his game (it should be remembered that Axie Infinity is based on two different currencies: SLP and AXS):

*“Putting a cryptocurrency into circulation adds a lot of responsibility to a project. Having a token in the wild globally turns your business into a public company. So you always have to consider the price of the token, which requires managing its community all the more.*

*Don’t create a token too soon unless you have the start of a product or a strategy to ensure the token’s value won’t drop too quickly.”*



# Focus: Metaverses

14

# The Metaverse market

The Metaverses segment is undoubtedly the one that generated the most interest at the end of the year, thanks to the sensational announcement by Facebook (which became META) that it was starting to work on setting up its own Metaverse.

Yet the principle of a Metaverse is one of the pillars of the NFT industry; one of the very first NFT projects on Ethereum in 2017 was a Metaverse project: Decentraland.

A Metaverse is a form of parallel universe that can be accessed digitally via a screen (computer, mobile, etc.) or via a mixed experience of the Augmented Reality or Virtual Reality type.

Like the film Ready Player One, a Metaverse is likely to offer gaming and social experiences, but it can also open up parallel economy possibilities: sale of items in the Metaverse (clothes, accessories, 3D objects, etc.) or even traditional e-commerce, through an experience within the Metaverse.

## Key facts and figures on Metaverses in 2021:

### Market

**\$513,868,780**

Total volume (USD)

**133,452**

Number of sales

### Assets and profitability

**\$3,850**

Average price (USD)

**\$254,726,672**

Total profit

**88.66%**

of sales at a profit

**\$6,806,895**

Total loss

### Community

**159.5**

Average holding time (days)

**44,527**

Active wallets

**54,333**

Number of owners

**14**

Total number of Metaverse projects

### Volume of NFTs and circulation

**58,138**

New assets created in 2021

**45%**

Percentage of all asset stock that circulated in 2021

**496,953**

Total number of assets identified

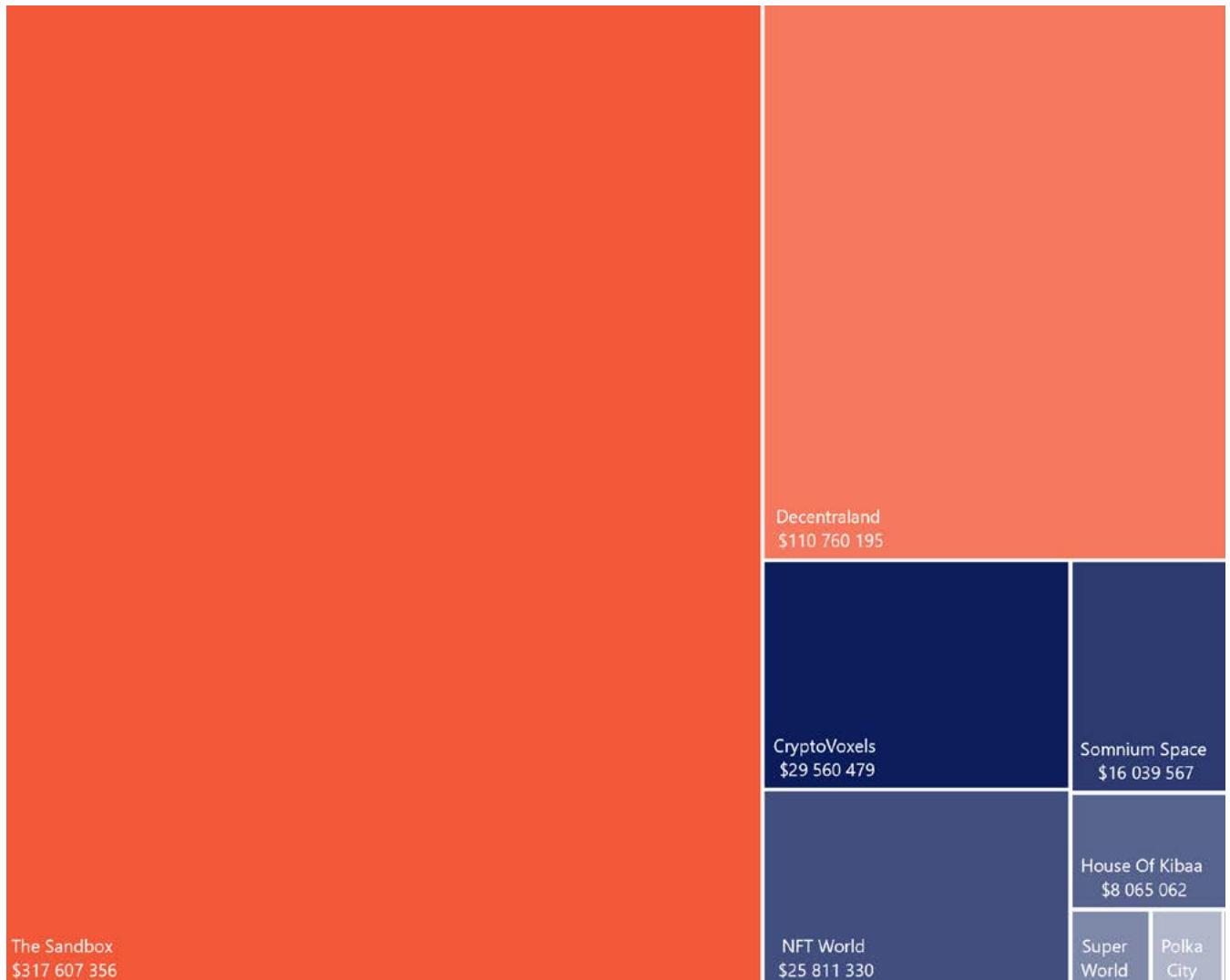


Fig. 44 – Breakdown of segment volume by project (USD)

The Sandbox is the Metaverse project that has benefited the most from the visibility offered by the Facebook group's announcement. The Sandbox accounts for over 50% of the market activity of the Metaverse segment in 2021, followed by the sector's historical player: Decentraland.

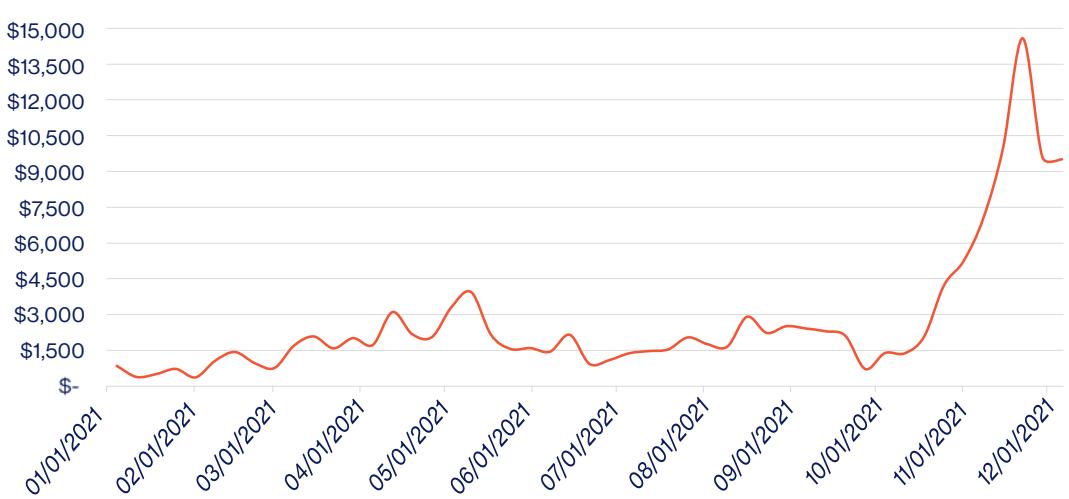
All the other Metaverses together account for less than a quarter of the total volume on the Ethereum blockchain. This segment is set to undergo a profound transformation next year, given the hype around digital universes: the market is expected to become much more competitive and diversified.

## Average price of a Metaverse plot over time

The average price of a Metaverse plot gradually increased over the year before exploding in recent months, in part following Facebook's announcement that it was becoming Meta.

At its peak, the price of a Metaverse plot increased 28 times, from \$500 to around \$14,000, before finally stabilising at around \$10,000.

Fig. 45 – Average price of a Metaverse plot over time



## Evolution of the rate of resale at a loss and at a profit

The Metaverses segment was spared the sudden peak in late August/early September that affected most of the other segments. However, all LAND owners were able to take advantage of the late October momentum to reach record profits with a peak of \$58 million in profit recorded in the week of 28 November. The volume of resale at a loss remained particularly low. This rate echoes the relatively long average holding period (more than 150 days): the owners of plots in a Metaverse are patient economic players who aim for long-term added value.

Fig. 46 – Volume of dollars of profit/loss per week on the secondary market

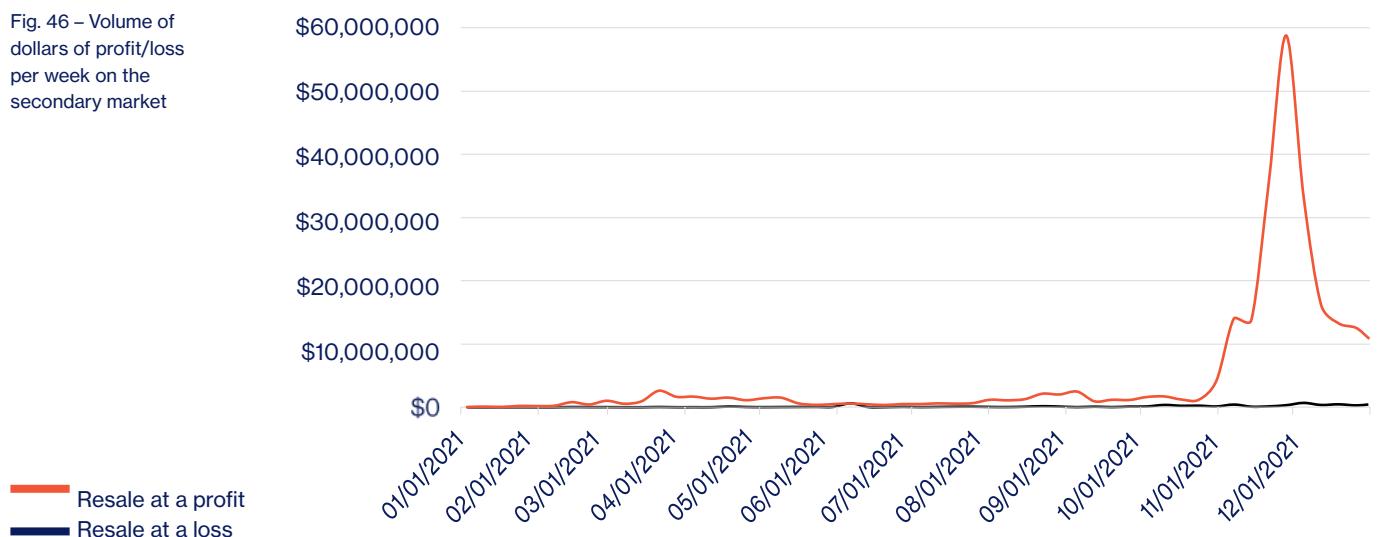
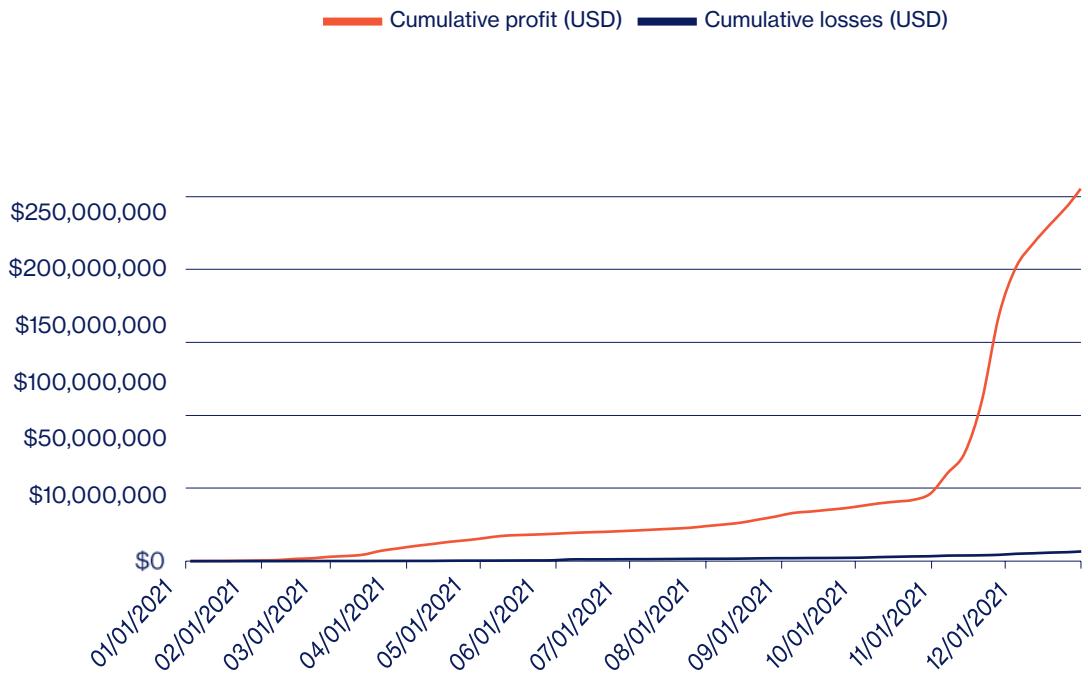


Fig. 47 – Cumulative volume of resales at a profit/loss in the Metaverses segment

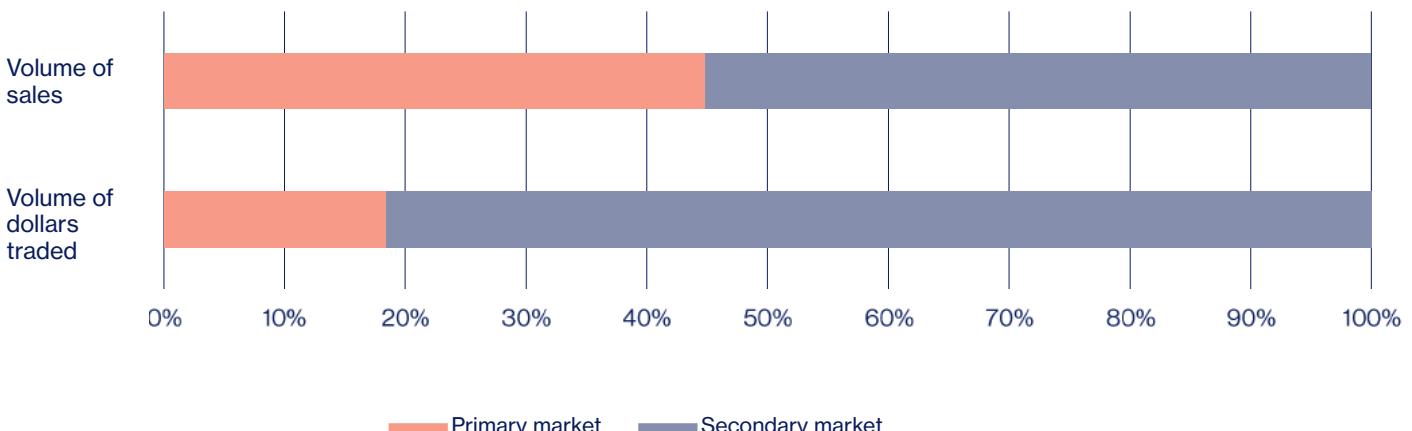


## Primary market vs. secondary market

Fig. 48 – Breakdown of the volume of dollars between the primary and secondary markets

The primary market for the Metaverses segment is driven primarily by The Sandbox, which continues to hold regular waves of pre-sales. Decentraland meanwhile ended its sale of LAND in December 2018, since then LAND sales only take place in the secondary market.

It should be noted that the volume of new Metaverse plots issued on the market remained relatively high, with 45% of the volume of sales in the primary market. The value remained concentrated in the secondary market with more than 80% of the volume of dollars traded.



# What does it mean to create a Metaverse in 2021? Feedback from The Sandbox



**Sébastien Borget**  
Co-founder and COO of  
The Sandbox

With more than 300 million dollars traded, and dozens of partnerships with major gaming studios and licences, The Sandbox has become the must-have Metaverse project of 2021. Although the concept of Metaverse is not a recent one, it raises more questions than ever. The term seems to be open to many different interpretations, and the use cases are not necessarily obvious to the general public.

In order to clarify these different points and to better understand the issues related to a project of such scope, Sébastien Borget, COO and Co-founder of The Sandbox has agreed to answer our questions and to analyse the incredible success of his Metaverse project.

Where did The Sandbox project come from?

*"Initially, The Sandbox was a mobile game launched in 2012, which was hugely successful in User Generated Content (UGC) with over 70 million assets created in-game. But that was also a source of frustration, there were these users spending a lot of time creating value through the content they generated, but we had no way of paying them in the game."*

What is the definition of a Metaverse according to The Sandbox?

*"For me, the Metaverse is a parallel world in which avatars, via a*

*representation in the form of a 3D avatar, will be able to participate in all kinds of richer, more social, more immersive experiences. By extension we can refer to 3D worlds such as Second Life, Fortnite, Roblox or World of Warcraft as Metaverses, in the sense that their users have avatars and live "mono experiences". There are going to be myriads of Metaverses, a plethora of virtual worlds where users hold their identity in the form of an avatar, hold their currency in the form of cryptocurrency and hold their digital assets in the form of NFTs. They can freely transfer them from one account to another. There will then be a distinction between centralised Metaverses such as Fortnite or Roblox, and decentralised Metaverses such as The Sandbox, Decentraland, etc."*

The "final" Metaverse would not therefore be the product of a single project or creator as seen in the film "Ready Player One".

**“the Metaverse is a parallel world in which avatars, via a representation in the form of a 3D avatar, will be able to participate in all kinds of richer, more social, more immersive experiences.”**

One”. On the contrary, it would be a network of interconnected digital universes, each with its own special features and meeting very specific needs.

Sébastien emphasises the notion of a “decentralised Metaverse” as opposed to universes managed by a central organisation. However, this notion of decentralisation necessarily raises the issue of excesses. How can we make sure that a Metaverse remains a pleasant and welcoming place for everyone without a “central authority” providing a regulatory role?

*“What happens in a decentralised community-governed world is that the community already has more power to decide and actively participate in moderation. Moderation will in fact be fairer than if it were managed centrally by one person deciding what can or cannot be done.*

*At the same time, we also have Terms of Services which mean that violent content, or content related to gambling, for example, is not authorised. We have mechanisms to ensure that this content simply won’t be displayed on the platform.*

*Incentives and monetisation will further involve users, who will ensure that the platform on which part of their income is generated remains widely accessible. We’re moving towards complete decentralisation at The Sandbox, but for now we’re still very involved in the platform’s quality and editorial responsibility.”*

The Sandbox therefore relies on the decentralised, autonomous governance of the platform provided by its users. The economy that will develop in the Metaverse should encourage all economic players in the virtual world to provide this regulatory role.

Such a fully decentralised model will only see the light of day after a long transition between moderation provided centrally by The Sandbox and moderation managed by users.

When asked about his predictions for next year, Sébastien is extremely optimistic about the Metaverses segment, which he sees as the leading segment in 2022:

*“Based on the performance we’ve seen in 2021, the segment that I think will take off in 2022 is Metaverses.*

*LANDs have taken on considerable value and the number of users who are interested in LANDs has exploded for very simple reasons: the absence of construction constraints, the speed of execution, job opportunities and income opportunities linked to a decentralised global audience.*

*We’re only at the very beginning of what The Sandbox can offer, in the next two to three years we’ll gradually get closer to 166,464 LANDs open and offering unique experiences, each owned by a user.*

*When you create content that you put up for sale in The Sandbox, you get 95% of the value of the sale, whereas in*

*Roblox only 30% goes to the creator. On the Google or Apple App Stores, it's 70% that comes back to you, but you have to spend on ads to be well referenced, so how much is really yours?"*

However, we have been able to see that speculation is rife on the markets, rapidly increasing the price of assets and sometimes making them inaccessible to those who would really like to build in the Metaverse. This aspect does not seem to worry Sébastien, who sees speculation as a temporary consequence of the hype around Metaverses.

*"Like any market economy, there's going to be regulation coming from supply and demand. For the time being we still have supply on Sandbox, new plots are put up for sale with each Land Sale at the fixed price of 1,011 SAND per LAND. As in real estate, the LAND alone will not continue to increase in value as we've seen so far, it's the work, the added value created by users that will bring additional wealth to the LAND."*

*For example, Republic Realm is one of the first real estate developers to buy LANDs; they are currently building 144 Fantasy Islands, each one unique, with a virtual house, an experience and a story. That's where added value is created."*

The parallel that Sébastien draws between the virtual economy and the real estate market is particularly interesting: the additional value of any LAND lies in the work, in the talent of whoever builds on it. Taking the metaphor even further, he concludes with the global economy that the Metaverses can create. It is no longer about speculation, but about creating jobs, developing start-ups around the world

to participate in the development of the Metaverses:

*"A circular economy is being set up with our 16,000 LAND owners. They're not just looking to buy a LAND, they're looking to recruit builders, which they pay in SAND (the currency of The Sandbox), they're developing a whole economy to build experiences with a large number of studios. The Sandbox helped incorporate 6 studios in 2021. These studios are usually made up of 5 to 10 people, and the largest has grown to over 40 people within a few months, so as to support the initiatives of LAND owners."*

*The growth of our ecosystem is one of our priorities, so that everyone can take advantage of the success of the Metaverse at their own level."*



# Focus: Utilities and Finance

15

# The Utilities market

The Utilities market is arguably the hardest segment to figure out and the most underestimated to date. The best-known use case for “Utility” type NFTs has long been for domain names, with the advent of Ethereum Name Service and Unstoppable Domains.

An underlying trend developed during 2021 with the fractionalisation of NFTs and divided ownership. This use case around finance opens up new perspectives for the use of NFTs as a store of value.

Utilities are considered to be any asset intended to meet a very specific use that is not directly gaming-related or whose primary purpose is to be owned.

Today there is a wide variety of use cases, particularly around finance, digital identity, access and authentication, ticketing, security, tokenisation of physical assets, certification of goods, the supply chain, health, etc.

It should be noted that the very nature of certain assets in the Utilities segment does not allow the creation of a market: identity card, identifiers, diplomas, medical records. The nature of the assets in circulation makes the Utilities segment by definition hard to compare with other segments of the NFT industry.

## Key facts and figures on Utilities in 2021:

### Market

**\$530,836,246**

Total volume (USD)

**543,479**

Number of sales

### Assets and profitability

**\$976**

Average price (USD)

**\$117,407,499**

Total profit

**74.53%**

of sales at a profit

**\$31,760,828**

Total loss

### Community

**162.8**

Average holding time (days)

**222,478**

Active wallets

**336,953**

Number of owners

**64**

Total number of Utilities projects

### Volume of NFTs and circulation

**334,814**

New assets created in 2021

**82%**

Percentage of all asset stock that circulated in 2021

**1,328,071**

Total number of assets identified

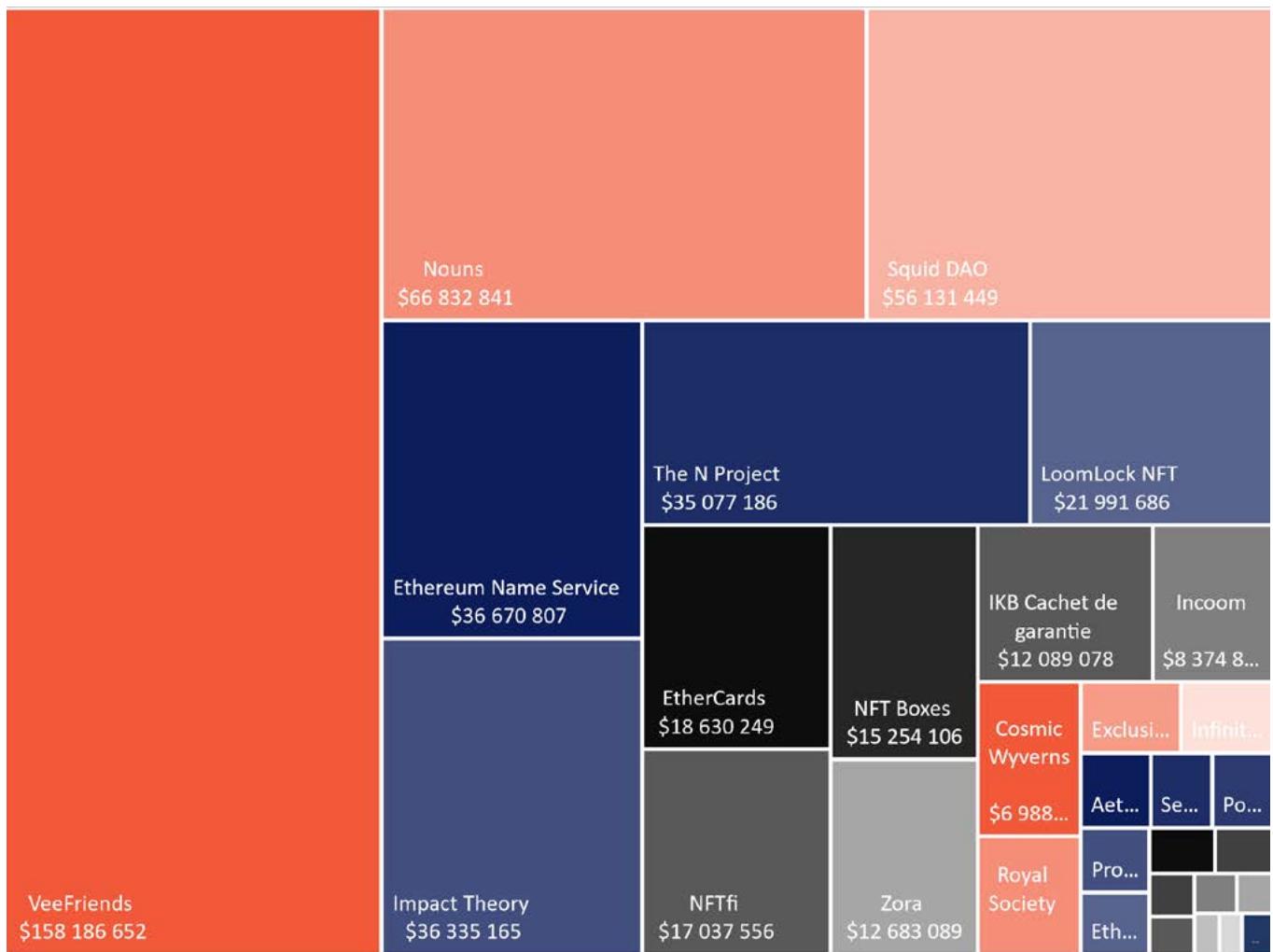


Fig. 49 – Breakdown of segment volume by project (USD)

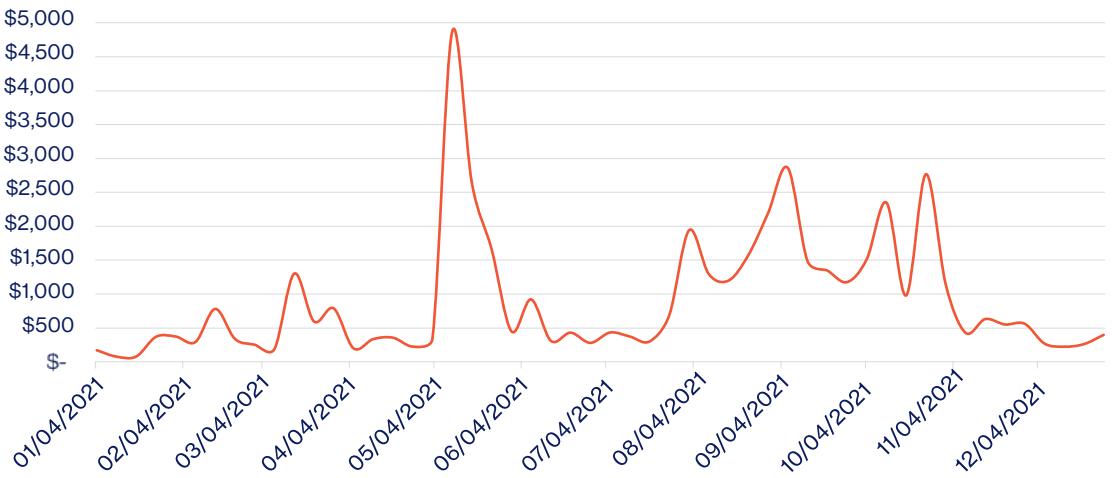
The Utilities segment is by far the most diversified and best distributed among projects. Although VeeFriends is the major project in the segment, it accounts for less than a third of all activity in the segment, which contrasts particularly with other segments of the industry that are generally very centralised around one or two projects representing the majority of the activity.

The best performing projects are organised around uses related to finance, domain names, DAOs, access to certain communities or even insurance.

## Average price of a “Utility” NFT over time

The price of “Utilities” has fluctuated considerably over the year, depending on the projects and announcements. The Utility segment does not appear to have any visible trend, largely due to the polymorphic nature of this segment.

Fig. 50 – Average price of a “Utility” NFT over time



## Evolution of the rate of resale at a loss and at a profit

There is a fairly significant disassociation between the trends of the Utilities segment and the other segments of the NFT industry. In the Utilities segment, the peak was recorded in early August, while most segments had their peak a few weeks earlier in the Summer of 2021. In the same way as for the Art segment, the trend at the end of the year was more towards sales at a loss with a sudden peak of more than \$4 million in resales at a loss against only \$1.3 million in resales at a profit on the secondary market.

Fig. 51 – Volume of dollars of profit/loss per week on the secondary market

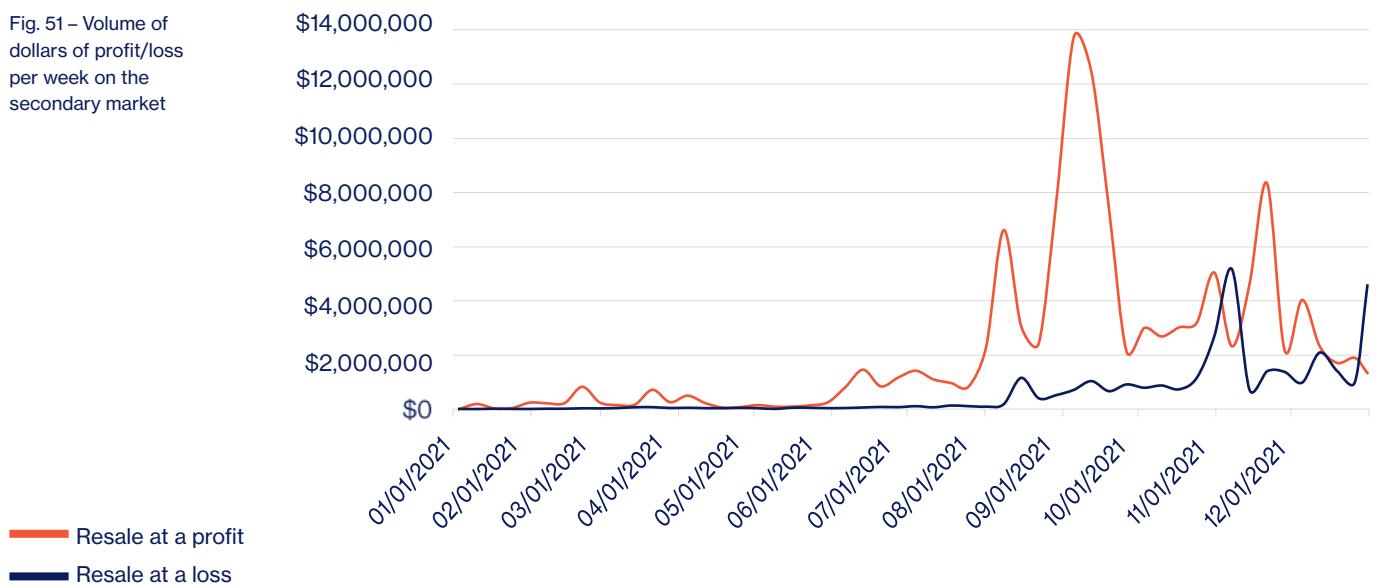
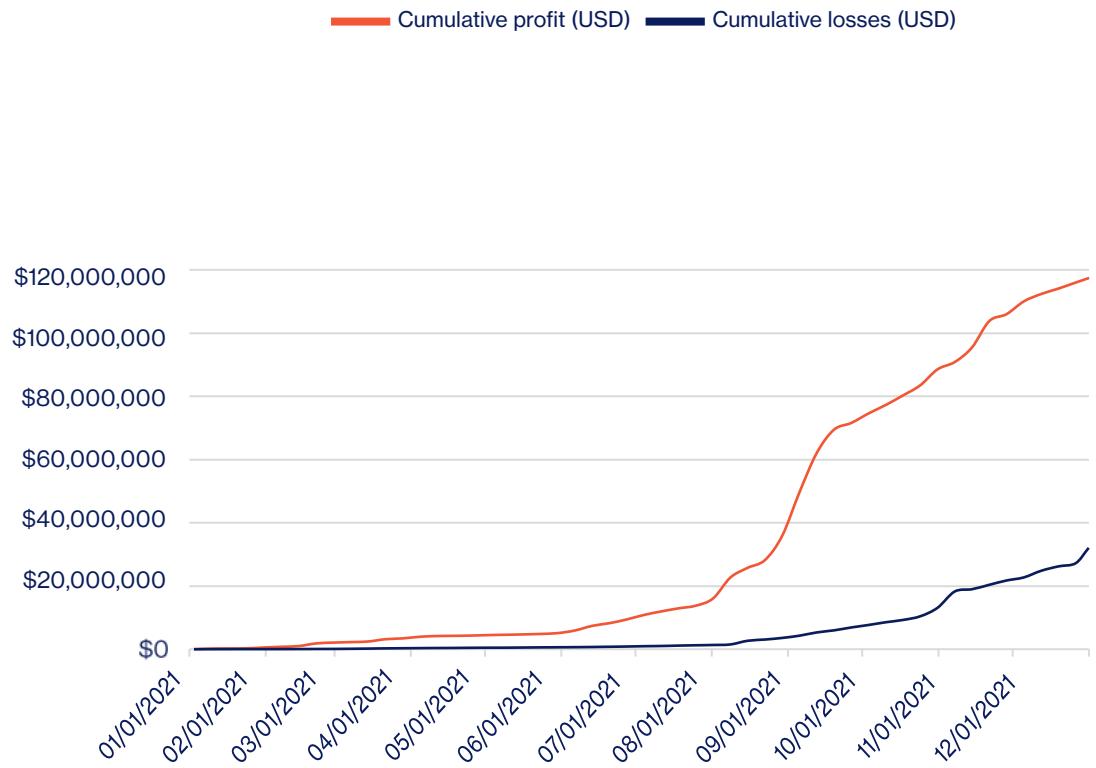


Fig. 52 – Cumulative volume of resales at a profit/loss in the Utilities segment

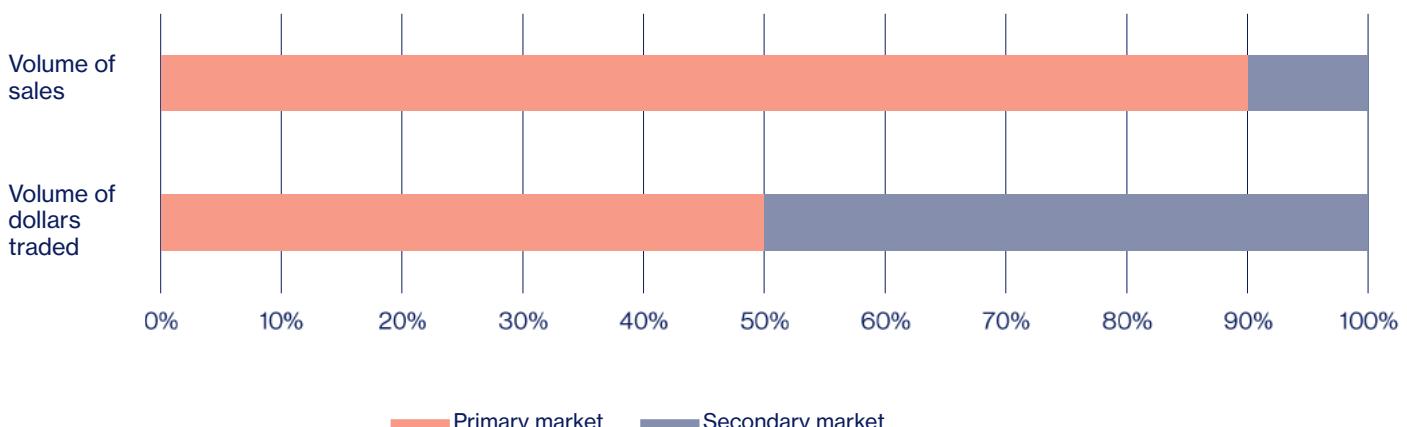


## Primary market vs. secondary market

Fig. 53 – Breakdown of the volume of dollars between the primary and secondary markets

The Utilities market is very different from the other segments. Due to the nature of the objects in circulation and their function, the secondary market is extremely weak (only 10%).

These assets, which find buyers on the secondary market, nevertheless have a very high value with just under 50% of the total value traded on the segment (over \$264 million).



# NFT x Finance: the rise of “Utilities” NFTs?



**John Egan**  
L'Atelier BNP Paribas CEO

This is for example the case of Finance with the rise of new use cases around NFTs. To explore this intersection between Finance and NFTs, the CEO of L'Atelier BNP Paribas has agreed to share his thoughts on the potential of these new crypto assets and the impact they can have in the short and long term on the world of “traditional” Finance.

To start, we ask him about his feelings on the situation in 2021 and on the recent hype around the NFT industry:

*“2021 was a breakthrough year for NFTs, which shows that the motivation and efforts of the early project developers, investors, content creators and users have started to come together. For the first time, NFTs have spurred a lot of economic activity in the virtual economy, as investors and brands have started to capitalise on the shift to virtual business and the early forms of digital ownership. However, we have also seen increasing levels of complexity, fraud and an opportunistic transfer of capital from crypto to NFTs.”*

Beyond the ultra visible and over-hyped trends such as Metaverses and Collectibles, other basic trends are taking shape, which could potentially cause major disruptions to certain industries in the coming years.

The idea that the success of the NFT industry comes from the convergence of motivation between the different stakeholders in the industry is extremely interesting and offers a new perspective to this notion of “NFT community”. Faced with all these changes and this excessive speculation, what is L'Atelier BNP Paribas's view of NFTs?

*“We view NFTs as evidence of the growing convergence of physical and virtual environments, which will follow on from today’s Internet due to new technologies and emerging social changes. If they were to evolve technologically, legally and socially, NFTs could expand beyond popular collection items and investable assets, to become the very basis for all types of digital asset ownership.”*

What do you think are the main obstacles that prevent traditional financial institutions from deploying funds and developing real investment strategies with respect to NFTs?

*"NFTs currently offer clear growth opportunities in the retail sector for e-commerce, intellectual property and users. However, large licensed financial institutions are unlikely to actively trade or service NFTs as long as the regulations surrounding them remain so fragmented and unpredictable."*

NFTs proved in 2021 that they can be considered a store of value. However, speculation and market volatility have also highlighted the significant fluctuations in the value of this asset class. What future do you see for "Vaults" and loans backed by NFTs in this context?

*"NFTs are unlikely to be an effective store of value if they continue to be both so volatile and so illiquid. If NFTs prove that they can retain value over time – including through new economic infrastructures and new market mechanisms – financial instruments will inevitably follow. This is potentially a significant growth area."*

The SEC has spoken out about the fractional ownership of NFTs and seems to consider this a form of "Security Token", so they are subject to a completely different kind of regulation. What is your view on the fractional ownership of NFTs?

*"Fractionalisation has the potential to turn NFTs into revenue-generating assets and help establish more efficient pricing mechanisms in the market as a whole. Overall, the*

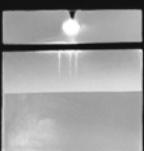
*process of integrating financial services into NFT products and services has only just begun and we expect it to accelerate over the next 12 months. This will inevitably lead to more financial regulation."*

Everyone is waiting to see what will happen this year. What can we expect from NFTs? Do you think we will see new use cases or interesting challenges for the world of Finance in 2022?

*"In 2022, NFTs will continue to be volatile, but the best projects should also begin to gradually transition from largely speculative assets to one of more useful assets for users, developers and brands. There are still significant gaps - and therefore opportunities - that could make or break the NFT market in the medium to long term: the need for more scalable and interoperable infrastructure and associated services, dynamic market mechanisms and a much more intuitive user experience."*

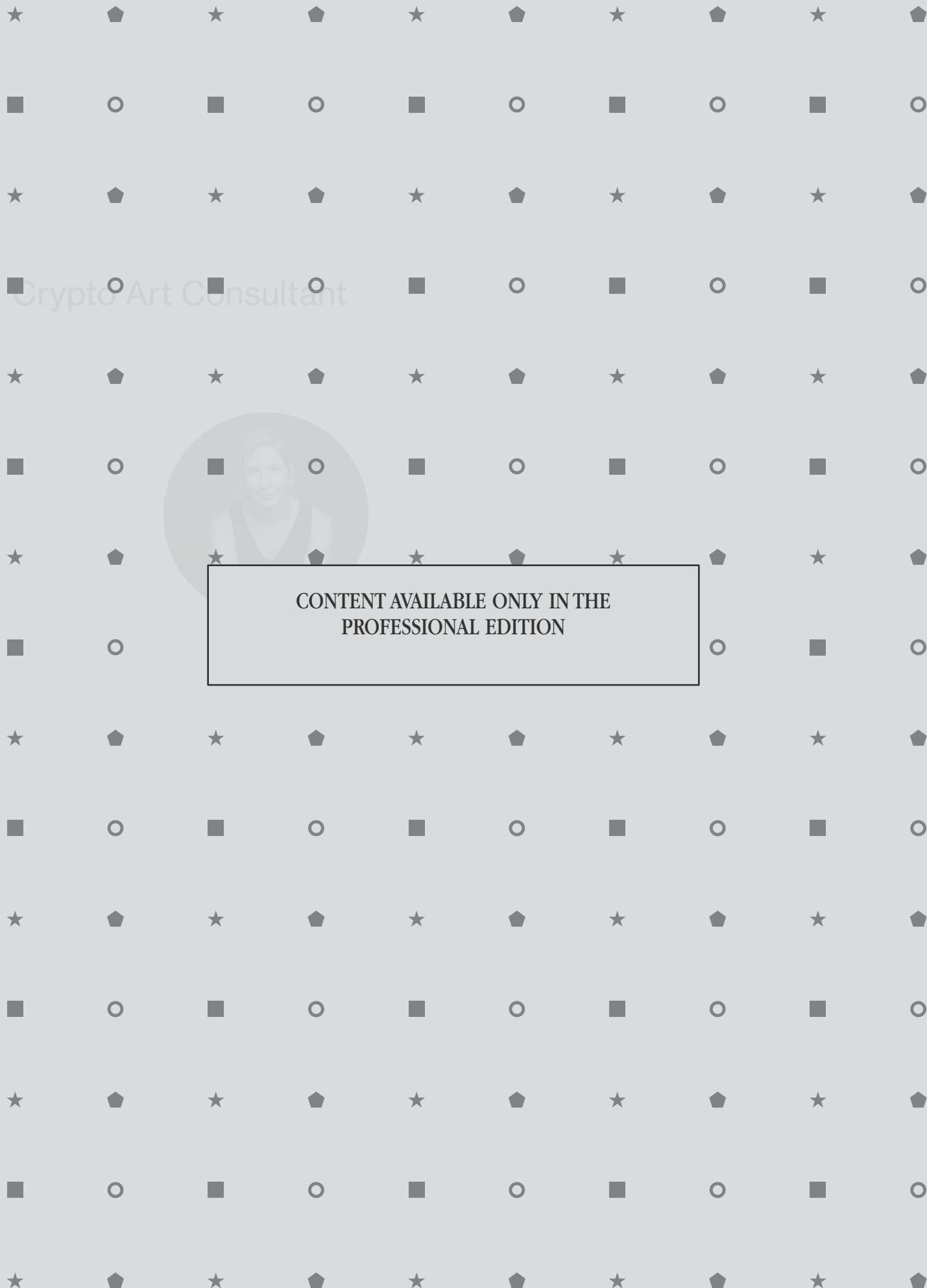
# Comparative data by segment

	<b>Art</b>	<b>Collectibles</b>	<b>Gaming</b>	<b>Metaverse</b>	<b>Utilities</b>
Total volume (USD)	\$2,798,220,643	\$8,471,807,117	\$5,177,192,804	\$513,868,780	\$530,836,246
Number of sales	774,307	4,500,827	20,986,532	133,452	543,479
Average price (USD)	\$3,282	\$1,882	\$207	\$3,850	\$976
Total profit (USD)	\$1,212,655,909	\$3,574,733,293	\$247,634,943	\$254,726,672	\$117,407,499
Total loss (USD)	\$153,216,027	\$432,815,281	\$42,592,925	\$6,806,895	\$31,760,828
Percentage of resales at a profit	79%	76%	73%	88%	74%
Average holding period (days)	33	41	67	159	162
Active wallets	148,124	483,948	1,880,614	44,527	222,478
Number of owners	212,579	718,888	1,722,714	54,333	336,953
Total number of projects	3,558 (artists)	593	112	14	64
New assets created in 2021	427,165	2,408,423	15,719,929	58,138	334,814
Percentage of stock of assets in circulation in 2021	86%	64%	92%	45%	82%
Total number of assets identified	1,639,782	6,018,262	21,156,291	496,953	1,328,071



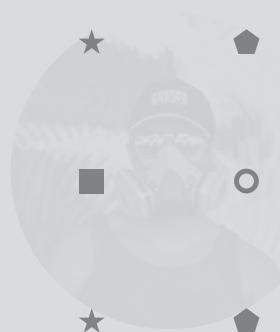
# The new jobs

16



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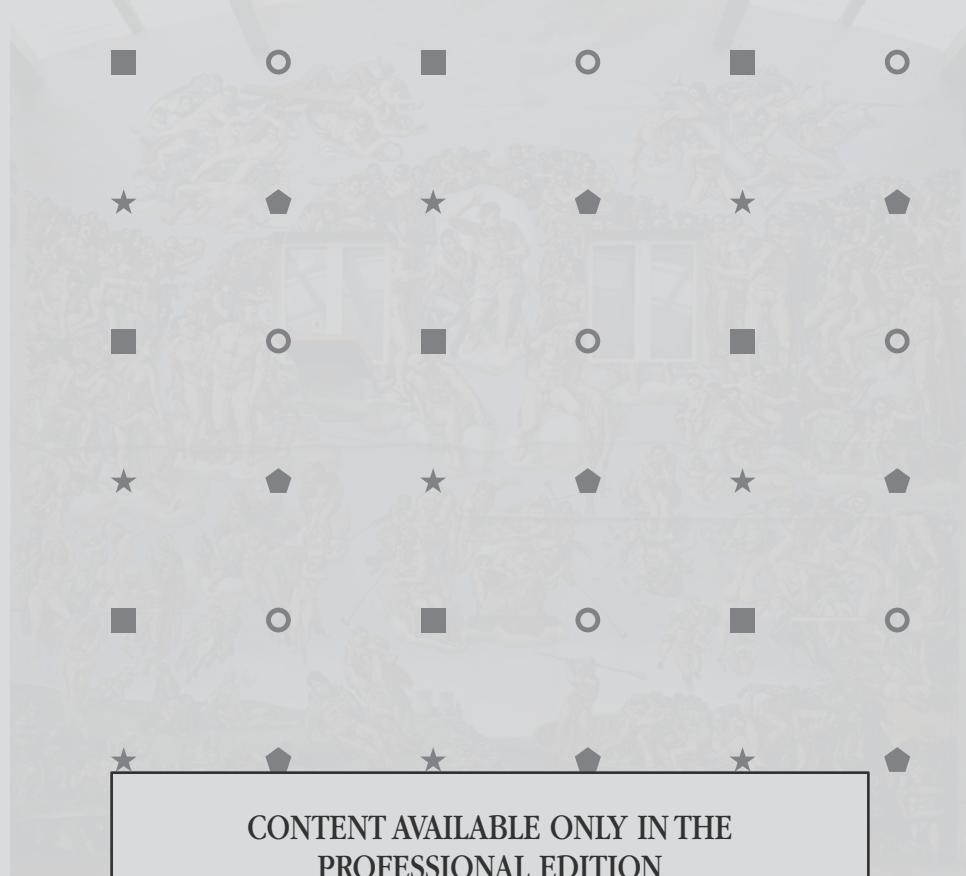
★ Digital artist



Pascal Boyart  
Digital Artist

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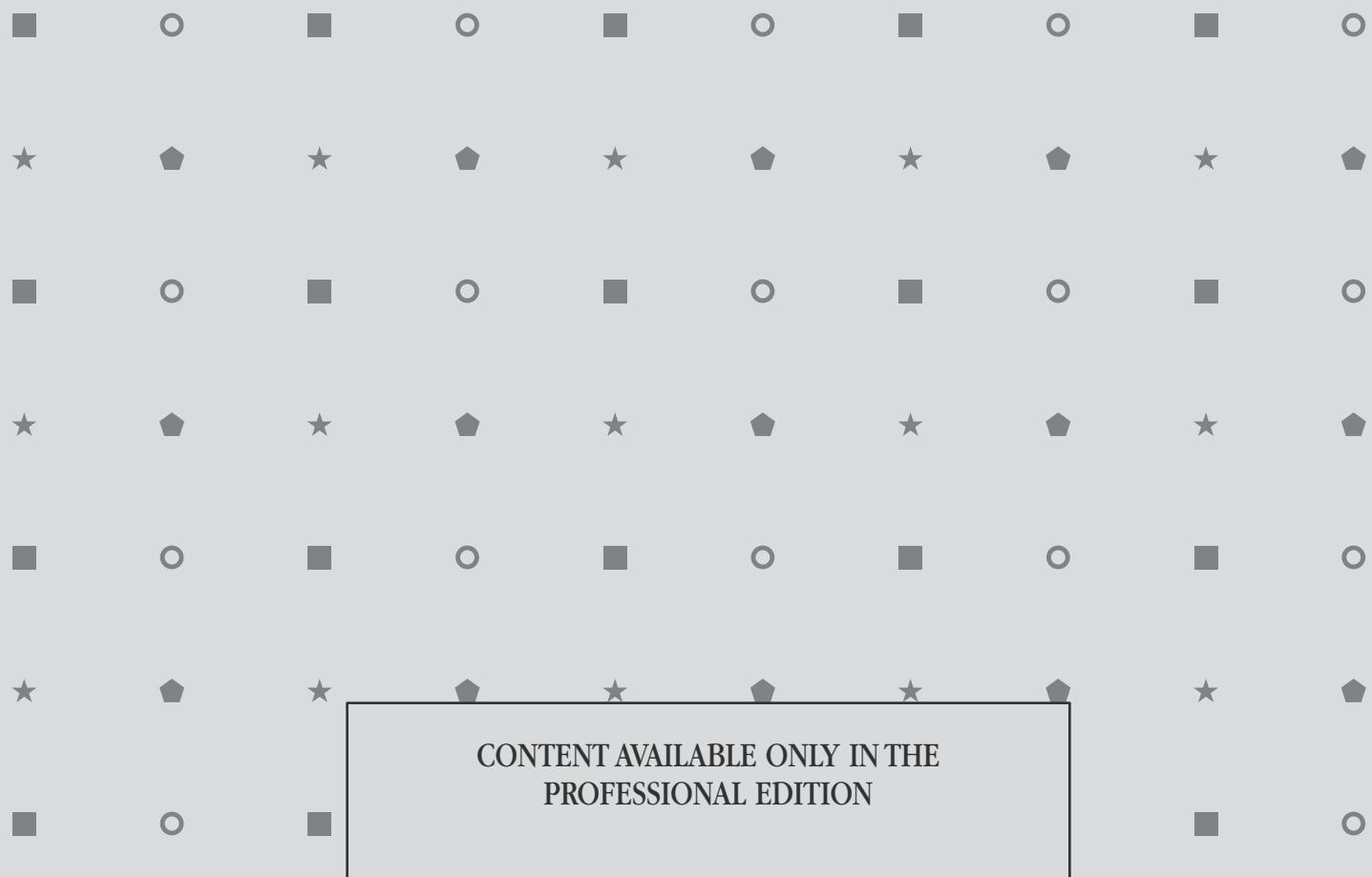


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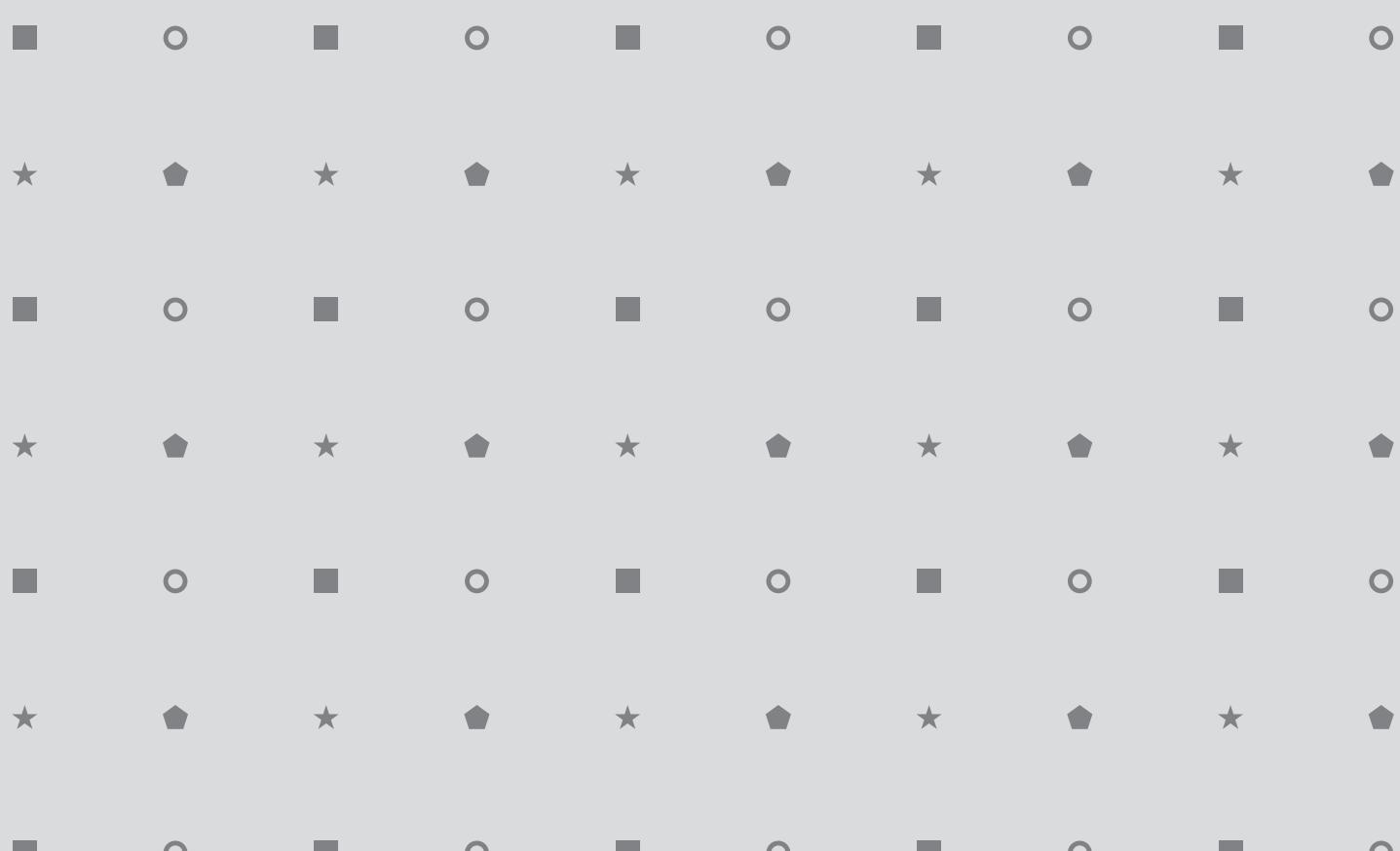
Boyart - 2021

Pascal

## ★ NFT Designer



## ★ NFT valuation expert

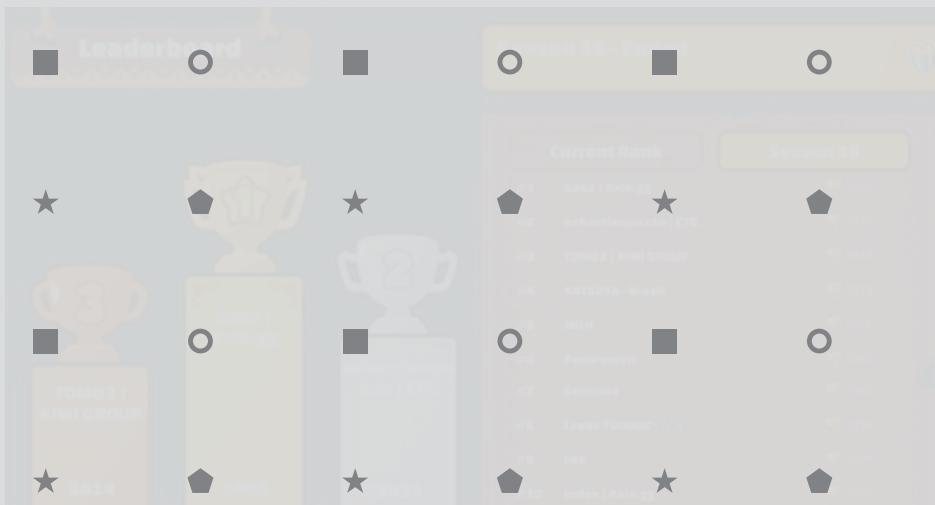


## Professional Blockchain Player



Sebastian Pozzo  
E-sport blockchain  
Professional Axie Infinity  
player

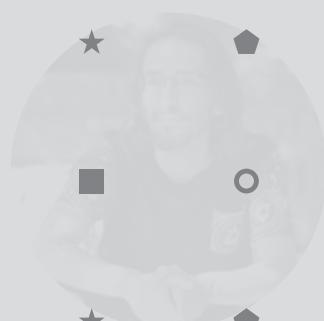
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Sebastian's final ranking in Axie Infinity  
Season 18

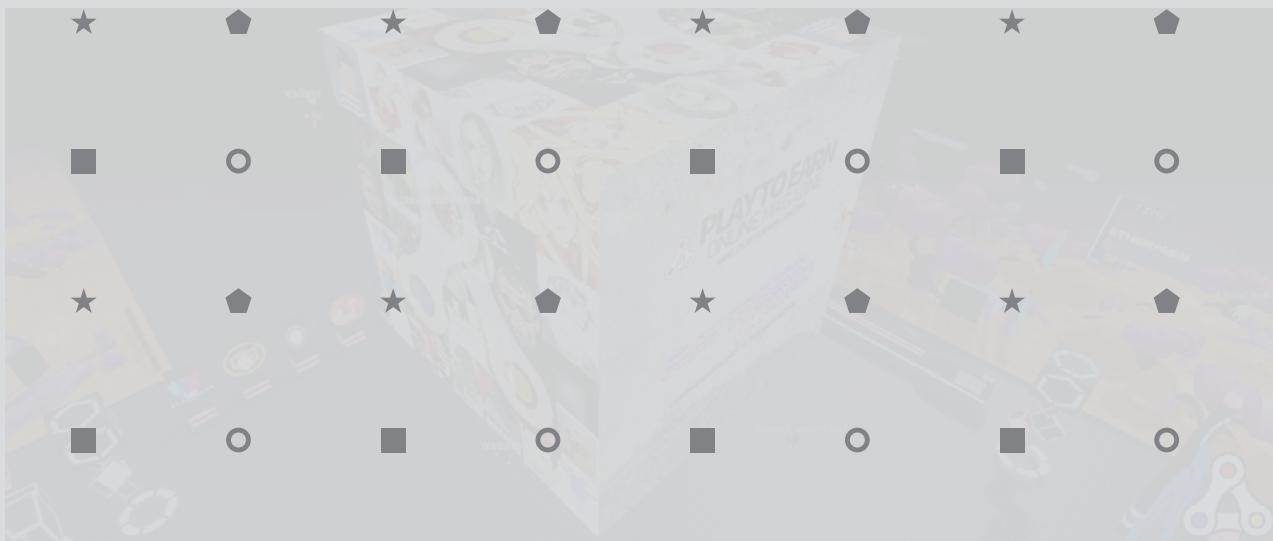
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## ★ Metaverse Designer



Daniel Garcia  
Polygonal Mind founder  
Metaverse 3D Designer

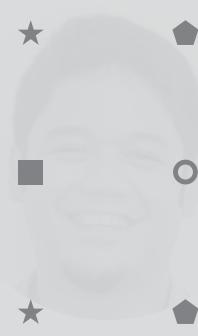
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MegaCraft by Polygonal Mind - The largest multiplayer game created in a Metaverse to date

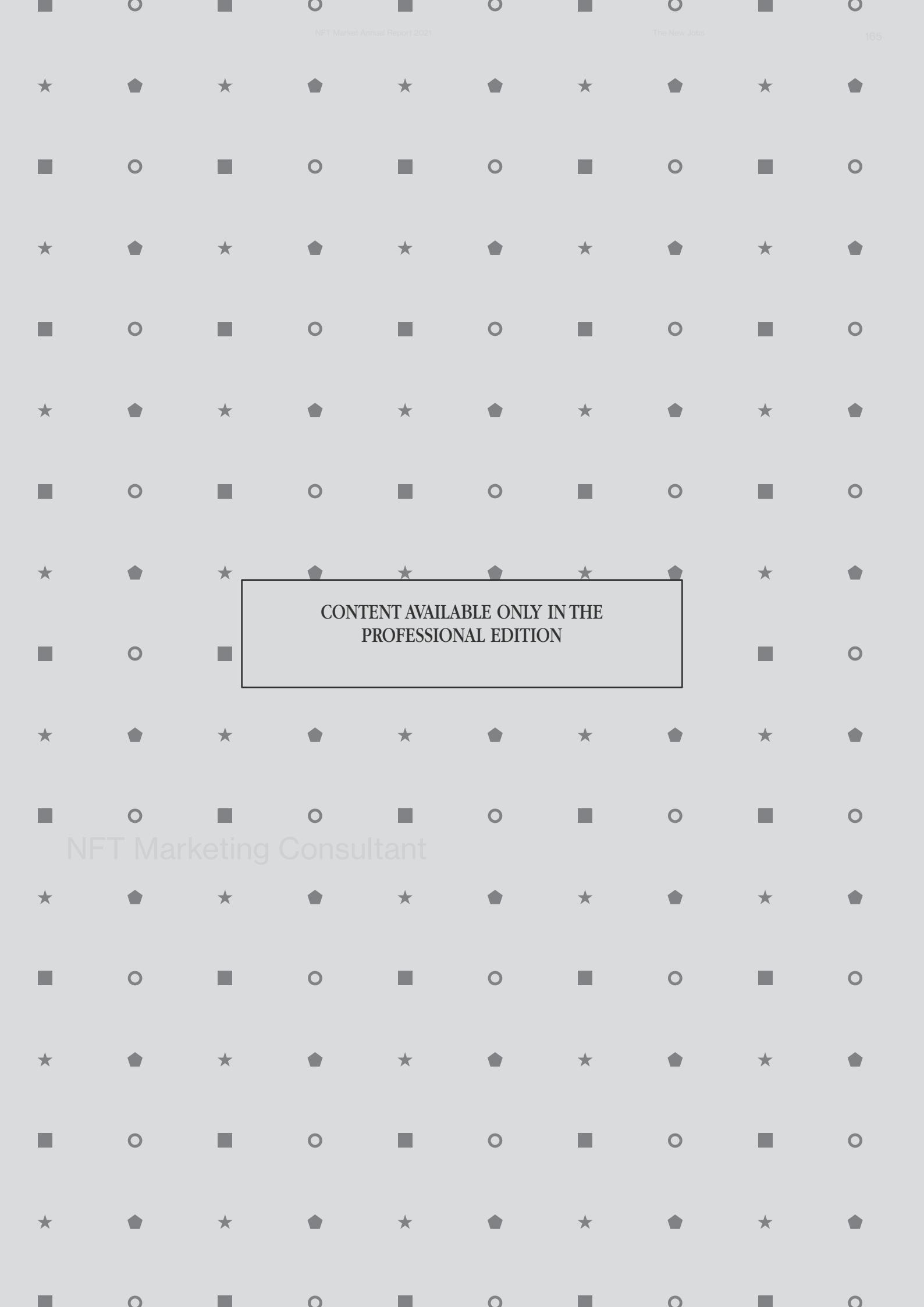
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## ★ Landlord in the Metaverse



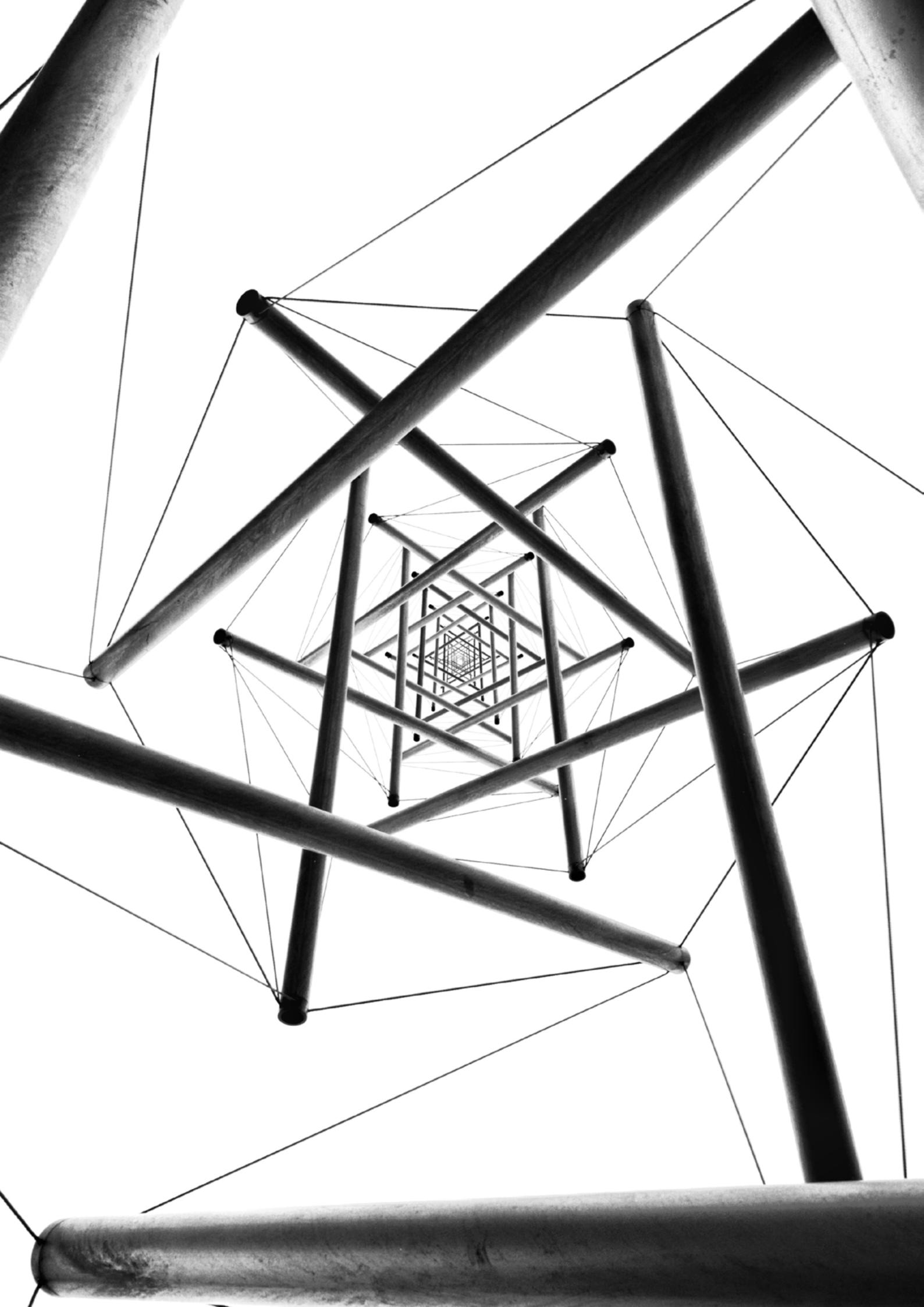
Gabby Dizon  
Yield Guild Game founder

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## NFT Marketing Consultant



# The Next Major Challenges

17

# The next major challenges

In 2021, 'NFT' was classified as the most often used word of the year by the Collins Dictionary. Proof of global and total adoption? Not really. The Non-fungible Tokens' ecosystem still has many challenges to overcome.

## UX

Today, reducing the number of clicks between selecting an item online and then making the purchase is paramount. User experience must be as fluid as possible. But this is not the case with NFTs. To buy an NFT in a decentralised way, you have to download a wallet, save your private codes, fill it with cryptocurrency and finally make the purchase after several portfolio and blockchain confirmations.

For purchases on centralised platforms such as Crypto.com or Binance NFT, user experience is a lot easier. But this ability to make a rapid purchase is to the detriment of the 'actual possession' of the NFT as it cannot be sold later on another platform. For the time being, there is no solution that has succeeded in finding a balance between user experience similar to that existing already and preserving the benefits brought by decentralisation.

## Legal framework and taxation

The legislative framework of NFTs is variable depending on the country. One of the only points in common is the separation of legislation on cryptocurrencies from that on NFTs. There is an absence of clear legislation on the assets underlying each NFT. Some countries associate blockchain games with games of chance, others with the property tax regime, others still with art. The major problem being that there are NFT projects covering several segments at once: metaverse and art, collectable and DeFi, etc. Therefore, for individuals, it can be very complicated to know how to declare income from the sale of NFTs. For companies, it is

even more complicated.

Many of them have to check whether their project complies with the framework of the law of their country as well as the laws of the countries in which they wish to sell their NFTs. As restrictions are not the same everywhere, some companies require the dispatch of an identity card or prohibit the use of VPNs to access their service.

## Market regulation

Owing to these legislative disparities, user protection by the different projects is difficult to implement. A form of self-regulation is organised among the community and the main marketplaces (Opensea or SuperRare for example) are increasingly responsive to scams or illegitimate copies.

As the blockchain was decentralised by design, it is almost impossible to anticipate scams upstream. However, some centralised marketplaces are obligated to be in contact with regulators to implement different KYC/AML methods in order to act more efficiently. Regulation of the NFT market may prove to be one of the greatest challenges in the years to come. The authorities have to be flexible so not to slow down innovation but one of the major interests of NFTs is their resale on secondary markets in a free and open manner.

## Ecology

The ecological question is not only particular to the NFT ecosystem but a global emergency. Everything that emits CO<sub>2</sub> must reduce its emissions: Proof of Work blockchains and centralised servers.

According to a University of Cambridge report, Proof of Work blockchain miners increased their use of a renewable energy mix in 2020. With the ban on mining in China in 2021, however these figures must have changed since.

The NFT ecosystem has not remained deaf to this issue. Today, numerous alternatives exist with a less energy-intensive consensus: Proof of Stake. Pre-existing projects are also offsetting their estimated CO<sub>2</sub> emissions with the purchase of carbon credit.

It is partly for this reason that projects are increasingly developing around other blockchains using the Proof of Stake model. On the one hand because transaction fees are lower but also because their energy consumption is lower compared with Ethereum.

### Speculation/Inflation

Although we can celebrate the growing development of the NFT market, there is still intense speculation, nevertheless. The third quarter of 2021 was marked especially by record volumes in the Collectables segment namely with the 'ProFile Pictures or 'PFP' trend.

At the same time, several international brands (Coca-Cola, Adidas and Nike, etc.) as well as stars such as Snoop Dogg showed an interest in NFTs. In addition to these internationally renowned players, numerous Venture Capital organisations invested in project fundraising. Within this context of excitement, it would seem that competition is in the process of being established amongst communities already present in the ecosystem and new arrivals this year. As online attention is a criterion of value in digital space, increasingly significant means are deployed to present projects.

This competition has several consequences:

- Artificial and temporary speculation regarding certain scams to the detriment of smaller but more serious projects.
- Acceleration of development and the creation of NFT projects.
- Global inflation of the ecosystem volumes.

In view of all these powerful external influences, the greatest challenge set in the future will be to retain the value that defines the NFT community: authenticity.

### Education and Acceptance

As a result of the promotion of major brands and the integration of the use of credit cards to buy NFTs, the number of active wallets soared in 2021. But the cryptocurrency universe takes time to understand and NFTs only represent one on the many ways in. In view of this influx of newcomers, the NFT community must continue to provide objective information on practices for reducing risks linked to cryptocurrencies. But, in addition, it must demonstrate acceptance and adaptability in respect of new uses.

This will require both parties to listen to each other in order to find areas of compromise. NFTs raise many questions and their demystification will be a major challenge for them to be truly democratised.

# NFTs: a new alternative for young generations



**Sang Chung**  
PlayDapp COO

As part of the series of interviews conducted for this report, PlayDapp COO, Sang Chung, made it possible for us to identify an additional issue connected with the adoption of NFTs.

In some countries, cryptocurrencies and NFTs represent an alternative to traditional economic models and, more precisely, a unique opportunity to climb a social ladder increasingly reserved for the elite.

In the example developed by Sang Chung, the case of property acquisition is extremely telling and illustrates the issues encountered today by young graduates, even in a developed country such as South Korea.

*"Recent reports suggest 1/5th of the Korean nation is estimated to have installed Central Exchanges APPs and 20 to 30 year-olds cover more than 50% of the userbase.*

*This younger audience has seen older finance models become less applicable to them due to the Pandemic and global economic situations.*

*This is providing a difficult environment for college graduates, strong, sustainable jobs are scarcer. Adding to the situation, real estate prices are on constant increase.*

*According to press, for citizens of Seoul, Capital of Korea, it would take them an average of 13.6 years saving all income to purchase an apartment in the capital city.*

*The young economic workforces are re-evaluating the traditional economics, increasingly more people are studying and investing in cryptocurrencies. At the same time the appetite and understanding of NFT and blockchain technology is on a steady increase which results in a more NFT savvy audience.*

*Traditional game companies are rapidly paying more attention to NFT use cases and this is where PlayDapp is helping legacy companies pave the way to a mass market blockchain gaming service."*

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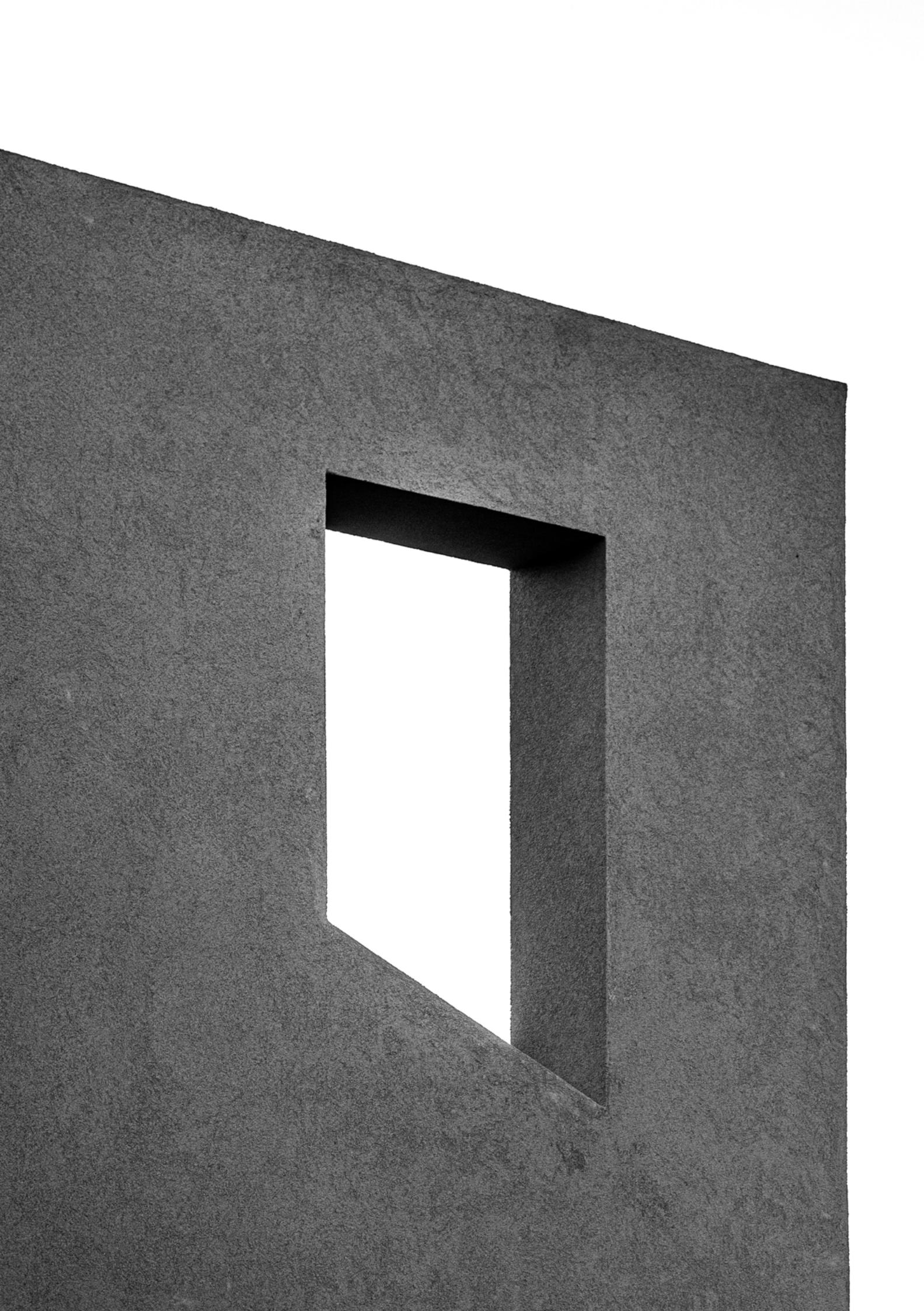
# Our predictions for 2022

18

★ Our predictions for 2022

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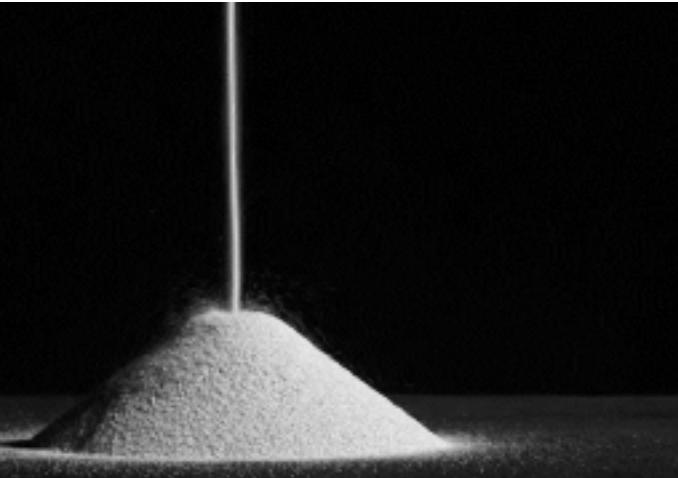
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# General conclusions

19

# Conclusion



## **Have you ever built a pile of sand?**

You know when you add sand to an existing pile and you see most of the sand you've just added roll down the pile to the ground? And yet part of what you've added remains at the top of your pyramid. It may be hard to perceive seen from a distance and you may think all the added sand ends up at the bottom and that it doesn't get any bigger. Even so, with every new addition your work grows, becomes stronger, consolidates its bases and naturally finds the place where each grain belongs.

The NFT industry works in a similar way. Each project, each experiment, each new NFT created, no matter how insignificant or surprising it may seem, adds something to the ecosystem. This industry is built up day by day, project by project learning a little more each day, so as not to repeat the same mistakes from the past: whether they were made in the NFT ecosystem or in the traditional markets.

## **An industry that is both more mature and more immature than ever.**

This may be one of the greatest paradoxes of the ecosystem.

At the end of 2021, we are up against a market that was more than ever subjected to excessive speculation, with new, with new inexperienced buyers and risk-taking increasingly less restrained. Throw into the mix an almost infinite proliferation of projects with relatively low added value, contributing to market saturation and raising suspicion about the real added value and potential of NFTs.

And yet... the ecosystem has never been so innovative and mature. The media hype surrounding NFTs has attracted the attention of players of a different scale, has made it possible to initiate new reflections on new use cases and, more broadly, to integrate this technology into the heart of all major industries.

The question today is no longer whether NFTs can bring value to these industries, but when and how they will make full use of them.

From beauty to luxury, transport to tourism, sport to ticketing, finance to insurance... which sector in the world is not looking into the use of NFTs?

Let's stay open-minded, let's stay lucid and let's continue to build the future of NFTs.

### Metaverse worlds: predictable catalysts

The Metaverse explosion at the end of the year was ultimately quite predictable. Not because of the announcement of Meta, but simply because the Metaverse is by definition the central space that connects all segments and all NFT activities.

What better place than a decentralised virtual universe with almost unlimited possibilities to roll out the full potential of this new asset class, and explore interoperability at the same time?

The Metaverse is not only the modern, decentralised version of digital experiences such as "Second Life", it is both the catalyst for the entire NFT industry and its best space for expression.

### A milestone in development

- NFTs are at a key stage where the most contradictory opinions can be read and heard:
  - "It's an absurd speculative bubble"
  - "NFTs are the future of technology and of the web"
  - "They'll be gone in a few years' time"
  - "The whole world will have some NFTs within 10 years"

Whatever your opinion on the matter, it should be recognised that NFTs have marked 2021 in a way few technologies have been able to. One way or another, the coming years will see new experiments, new challenges, incredible successes and new drifts.

Let's not forget that one of the greatest strengths of the NFT industry is that it first saw the light of day during the most significant crypto bear market. The projects, the founders, the collectors who have played a part in developing this ecosystem are thick-skinned, they have known from day one that they are building for the long term.

Let's keep a cool head, let's stay alert for the next big development and let's not be disconcerted by all the noise.

# List of projects by segment

ART	Cadaf	Dreamstone	Johorionyoung
303	Carlkidart	Dyasart	Jonnoorlander
1997	Ceyadams	E9art	Josie
1000eye	Chenandink	Echo	Joyworld
256art	Chruchofwhatever	Ejthek	Kaijaart
89secondsatomized	Civit	Ellesse	Kaleidoscope
Aabranches	Club99	Emotions	Kamagang
Abnerharris	Codexprotocol	Emotionull	Kamimart
Abstractions	Coinartist	Ephimera	Kasm
Adespresa	Colorglyphs	Errorinname	Katevassdigital
Adidust	Conniedigital	Espenkluge	Keilimajor
Ai42	Contoured	Eternalfragments	Khan
Aicryptartoart	Coronababies	Ethdenver	Kleee02
Aivatar	Corrosive	Ethernalart	Km-att
Alinadreiman	Corruptions	Evilvoxels	Knownorigin
Alinalosevalove	Creativepixler	Exhto	Knownorigin2
Allbi	Criscyborg	Fabianospeziari	Ledgart
Alottamoney	Crypters	Facies	Lipsmak
Amazonelope	Cryptoart	Filaments	Litcollective
Angietaylor	Cryptoarte	Filles	Logankurtzlarkin
Anonymousnobody	Cryptoblobs	Finecryptoart	Logbook
Arkcovers	Cryptochild	First	Londongift
Arkgallery	Cryptograph	Foodmasku	Loopbomb
Artai	Cryptohobos	Foundation	Lostpoets
Artblocks	Cryptoinvaders	Fractaldimensions	Lovelystones
Artbynelly	Cryptokanji	Framergence	Luchampions
Artificial	Cryptomingbi	Frenetikvoid	Lyleowerk
Artisteenherbe	Cryptomorph	Fuzz	Machix
Artistliberation	Cryptomutts	Fvckcrystal	Maddogjones
Artistsunleashed	Cryptoparadoxx	Gandesigns	Magnft
Artmart	Cryptopepemarket	Ganoodles	Makeitbeautiful
Askey	Cryptoskulls	Garycartlidge	Makersplace
Asyncart	Cryptostarks	Gener8tive	Markjdiez
Autoglyphs	Cryptotonya	Geneticchain	Markozubak
Automaton	Cryptowiener	Geomatrix	Mattiacuttini
Autovoxx	Cryptoyuna	Giantswan	Mattiecuttini
Avastars	Cryptozr	Glitchedartgallery	Maxonbollocks
Avidlines	CybercOn	Glitchyartgallery	Maxosiris
Beh0dlers	Cyberpop	Globalcryptoart	Maxosiriscryptoart
Bergerandfohr	Cybertrashnart	Glowingfingerdesign	Metabots
Binaryrefinery	Dabdragon	Goldweard	Metageist
Bishopstatootools	Dada	Gxpart	Metaglitch
Bitairt	Dankyart	Hackatao	Mfers
Bitartwork	Davincicollection	Hanafuda	Mighty33
Bitgallery	Dclmemes	Harrisontiller	Minerva
Bitjamin	Deafbeef	Hashrunes	Minervavol1
Bitpix	Decryptoart	Hdr	Missalsimpson
Bitsforai	Decryptotorian	Hex6c	Momentomori
Blackboxart	Devels	Hextruchets	Mosocial
Blackboxdolls	Didierra	Himesaarts	Mrmonk
Blockart	Diegoredriguez	Hipworth	Mryuk
Blockchainartexchange	Digiartworld	Honeybadger	Murall
Blockchainminersclub	Digitalart	Huxleycomics	Museumofcryptoart
Blockfame	Digitalartchain	Ih0dl	Mutantgardenseeder
Blockparty	Digitalartcollective	Infinit	Mutatismutandis
Braindrops	Digitalprintimage	Infiniteloop	NOshot
Brainvomit	Digitible	J48baforms	Nahfungiblebones
Brucethegoose	Dinizbrart	Jamesgilna	Naturalwarp
Bunnyinvasion	Distantvoidices	Jaydelay	Nellybaksh
Buschgirl	Doggyethpics	Jbgarrison	Neolastics
	Doodles	Johnnydapp	Nfmedia

Niftygateway	Squiggly	Angryapesunited	Bullishllamaclub
Niftyink	Statusstickerpack	Angryboars	Bullrunbabes
Niftymoji	Stellarx	Animalkingdom	Bullseum
Ninoarteiro	Stinajones	Animalsociety	Bullsontheblock
Nonfungerbils	Sugarclub	Animetas	Bunker2171
Nylacollection	Superlatesecretsociety	Anonymice	Bushidos
Obxium	Superrare	Apedaoremix	Butts
Oculardelusion	Sweetvoid	Apekidsclub	Buzzedbearhideout
Odysseum	Technorigami	Apeonlyisland	Byopills
Ogarsvoxelmodels	Tedbundyletters	Apesruntheworld	Byzantinespacequest
Oliveallen	Thebigwavecollection	Apexoptimizers	Capitalcities
Onlyonepixel	Thecurrency	Apymon	Capsulehouse
Ooakosimo	Thisisalwaysonsale	Arabiancamels	Chainfaces
Osinachart	Tillustrative	Arcadians	Chainrunners
P1xelfool	Timvi	Artstars	Chameleoncollective
Palmrealityfineart	Tokensmart	Astroheads	Cheekylionclub
Papereditions	Tomyoo	Astroledger	Chibidinos
Pascalboyart	Toon	Avarihsaga	Chibilabs
Perrycooper	Toonpunk	Axolittles	Chillbearssociety
Perseverance	Toyfactory	Azimuthpoints	Chillfrogs
Piggericks	Trashgifs	Babyapesrescue	Chillinchameleons
Pixelarts	Trevorjonesart	Badkidsalley	Chubbies
Pixelchain	Trevorlawrencetoppschrome	Bamboozlers	Chubbiverse
Pixelcons	Trislitsfineart	Baroquegame	Citizensofbullieverisland
Polygondisasters	Tunachum	Basementdwellers	Claylings
Portion	Twistedsister	Bastardganpunks	Clovers
Potenza	Twistedvacancy	Bastardpenguins	Coalitioncrew
Powzone	Urben	Bearsdeluxe	Collectibleclips
Pranksy	Vinniehager	Bearx	Coolcats
Projectiwantart	Vixvaporwave	Billionairecoyotecartel	Cooldogs
Prokopevone	Vron	Bitcoinmillionaires	Cosmiccowgirls
Prometheusx	Waifusion	Bitmonsters	Cosmiclabs
Pumpametti	Waveblocks	Bitpainting	Cosmomasks
Punkscomic	Wavelength	Bitpony	Covidpunks
Quasimondo	Wenft	Bitverse	Crazycamels
Raptorusjesus	Whale	Blankface	Crazylizardarmy
Rarecandy3d	Wizardx	Blazecdats	Crazyskullz
Raretrash	Wowcrypto	Blitmap	Creaturetoadz
Rarible	Xcopy	Blockchainfootball	Creatureworld
Rendar	Xdonkey	Blockchina	Creepycreams
Retornável	Yetepeysfineart	Blockheads	Creepycryptos
Retroartauction	Yrdgz	Blockmarkgems	Crisscross
Reviser	Zenart	Blocktimebuddies	Cryptoadz
Robness	Zplit	Bloemenveiling	Cryptoalchemy
Robots		Bluboy	Cryptoamulets
Rockingarts	<b>COLLECTIBLES</b>	Bmby	Cryptoanime
Rugstore		Bocklin	Cryptoartai
Sappohstokensbazar	On1force	Bonesandbananas	Cryptoarts
Scribble	Oxbitcoinmemes	Bonesclub	Cryptoathletes
Scsspixelart	Oxearth	Bonsai	Cryptoatoms
Secondrealm	Oxmon	Boonjiiproject	Cryptoav
Shaolinsshoppe	Oxverse	Boredapeclub	Cryptoballers
Shortcut	365days	Boredmummywakingup	Cryptobeasties
Skeenee	Absurdarboretum	Boredpunyachtclub	Cryptobeasts
Smilesssvrs	Abysms	Boringbananasco	Cryptobeauty
Snarkart	Adambombsquad	Bossbeauties	Cryptobots
Soundmoney	Adorablealiensclub	Bosslogicuniverse	Cryptobullsociety
Spacedpainter	Alcabones	Botheadcollection	Cryptoburrito
Spectraart	Alpacadabraz	Bricktopians	Cryptobuttonpins
Sphericalart	Alphabettydoodles	Bubblegumkids	Cryptocannabisclub
Squareka	Angryapearmy	Bullionix	Cryptocaps

# List of projects by segment

Cryptocars	Cryptopets	Degeneraterobotravingtribe	Etherpornstarsstar
Cryptocelebrities	Cryptophones	Derpybirbs	Etherprincesses
Cryptochampions	Cryptophunks	Derpydragons	Ethersark
Cryptochamps	Cryptopinions	Desperateapewives	Etherspace
Cryptocharms	Cryptopizza	Diamondboyzarmy	Etherstar
Cryptochicks	Cryptoplaces	Diamondcryptodunks	Etherstrike
Cryptocolors	Cryptoplanets	Digible	Ether tulips
Cryptocountries	Cryptopoliticians	Digidragonz	Ethervillains
Cryptocoven	Cryptopolz	Digitalaxgenesis	Ethervirus
Cryptocrystal	Cryptoporn	Digitalmetamorphoses	Etherwaifus
Cryptodads	Cryptopornscenes	Dirtybirdflightclub	Etherwords
Cryptodates	Cryptopornstaraward	Dirtydogs	Etherworld
Cryptodickbutts	Cryptopornstars	Dlvisualcard	Etherworlds
Cryptodoggies	Cryptoportraits	Dogsof felon	Ethemoji
Cryptodrinks	Cryptopunks	Dogsunchained	Ethpiranha
Cryptoelements	Cryptopuppies	Doomcatrescue	Ethpizzeriaonline
Cryptemoji	Cryptopupps	Dopeshibas	Ethquarter
Cryptofantasysoccer	Cryptopussy	Dopeyducklings	Ethwaterloo
Cryptoflowers	Cryptorabbits	Dormantdragons	Everdragons
Cryptoflyz	Cryptoracing	Dotdotdots	Evilemoji
Cryptofootball	Cryptoracingleague	Dragonereum	Evolvingforest
Cryptofoxes	Cryptosatan	Dragonseth	Exoplanets
Cryptogems	Cryptoskateboards	Drakons	Expletivepickles
Cryptogifttoken	Cryptosicer	Dreggs	Fabgtoken
Cryptogirl	Cryptosocr	Dworld	Fameladysquad
Cryptogirls	Cryptosport	Dystopunks	Fanggang
Cryptogit	Cryptosportsfootballfantasy sports	Dyverse	Fantasyfootballnft
Cryptogoats	Cryptosportstars	Editorial	Fastfoodfrens
Cryptogs	Cryptostamps	Emojiblockchain	Fatales
Cryptohammies	Cryptostrikers	Emontfrenzy	Fataclub
Cryptoheart	Cryptosuperheroes	Enigmaeconomy	Feltzine
Cryptohero	Cryptothrekingdoms	Epiceagles	Feudalz
Cryptoheroes	Cryptottitties	Epics	Fishbank
Cryptohodlers	Cryptotoons	Etdogs	Fishbowleheads
Cryptohoots	Cryptotrunks	Etheranimals	Flokatars
Cryptohorse	Cryptotubers	Etherass	Flower
Cryptohuskies	Cryptowaifus	Etherathletes	Flowergirls
Cryptoink	Cryptoweirdos	Etherbots	Floydsworld
Cryptojanky	Cryptowhale	Etherbrands	Fluffypolarbears
Cryptojingles	Cryptoxmaspostcards	Ethercities	Flufworld
Cryptointori	Cryptozcards	Ethercolors	Flyfrogs
Cryptojockey	Cryptozombies	Ethercountries	Footballclubsuperstars
Cryptokaiju	Cryptozombiez	Ethercup	Forgottenrunes
Cryptokanojo	Cryptozunks	Etherdogs	Fortunecats
Cryptokittens	Crypturtz	Ethereals	Foxfam
Cryptokitties	Cubegon	Etheremojis	Foxyfam
Cryptokittesscam	Cupcats	Etheremon	Fullbodyapeclub
Cryptolandmarks	Cutepigclub	Etherestates	Funkymonkeys
Cryptoleaders	Cybercitygirlsclub	Ethergems	Furballs
Cryptomaniac	Cyberhornetscolonyclub	Ethergirls	Fusionapes
Cryptomayor	Cyberkongz	Ethergotchi	Galacticapes
Cryptomemes	Cyberzombiesociety	Etherislands	Galacticsecretagency
Cryptomibs	Cyphercity	Etherlambos	Galaxyfightclub
Cryptomotors	Daopunks	Etherleaguehero	Galaxykats
Cryptomovies	Daoturtles	Ethermars	Gamblingapes
Cryptoongoonz	Darkhorizon	Ethermeals	Geneaidols
Cryptoonlinebattlearena	Davaproject	Ethermeta	Generativealchemylab
Cryptooscars	Deadcelebrities	Ethermon	Generativeburgerclub
Cryptopeeps	Deadfellaz	Ethernubmers	Genzee
Cryptopepe	Deadheads	Ethero	Gevols
Cryptopersonalities	Debttoken	Etherponies	

Giftomon	Leagueofsacreddevils	Niftypride	Rareghostclub
Gladiether	Legendarycultures	Ninjasquad	Realitycards
Gluefactoryshow	Lilbabypeclub	Nobody	Rebelrabbits
Goatsoup	Lilbabycoolcats	Nonfungibilefrens	Rebelsealsclub
Goatz	Lilbabypunks	Nonfungiblefrens	Remixclub
Goldenagecomics	Lonelyalienspaceclub	Nonfungiblefungi	Rgb
Goobers	Lonelyfroglamboclub	Nonfungiblepepe	Roaringleaders
Goonsofbalatroon	Lonelyheartsclub	Noundles	Robotos
Gootroop	Loopydonuts	Obits	Roguesocietybots
Gopony	Luckymaneki	Octohedz	Rottenswap
Gravel	Machinie	Ogcystals	Royalsocietyofplayers
Graycraft	Madapetournament	Onchainmonkey	Rtfktstudios
Greatapesociety	Madbananaunion	Oneaybae	Sadfrogstdistrict
Grillzgang	Macatmilitia	Onedaybae	Sadgirlsbar
GuardiansoftheMetaverse	Madmeerkatburrow	Onehourtimepieces	Sappyseals
Gutterdogs	Madrabbitsriotclub	Ornament	Satoshibles
Guttergang	Magicmushroomclubhouse	Osiriscosmickids	Satoshifaces
Gymbros	Marblecards	Outlawgalsmotorcycleclub	Savetemartians
Hashmasks	Mars	Owntheday	Savethemartians
Headdao	Marscatsvoyage	Pandaearth	Secretsocietyofwhales
Heavencomputer	Math	Pandagolfsquad	Sherbet
Hedgie	Medievalpixels	Pandaparadise	Shiboshis
Hegicmemes	Meebits	Paradisetrippies	Shogunsamurais
Hellodogs	Mekaverse	Parallelworld	Shroomz
Hero	Memefactory	Partyapebillionaireclub	Skullx
Hiddeninnoise	Messagetomartians	Partydegenerates	Skullys
Hiprecious	Metabillionaire	Partygrandparetirementclub	Slackerduckpond
Hiramyojin	Metagame	Partypenguins	Slimhoods
Hodlgang	Metasaurs	Passiveapes	Slumdogbillionaires
Holycows	Metathugs	Peacefulgroupies	Slumdogebillionaires
Hor1zonproject	Millionpieces	Pegz	Smartzombielab
Horsetoken	Minersvipminerals	Penguinfightclub	Sneakr
HumansoftheMetaverse	Mobsquads	Pigskinapes	Sneakrcred
Hyperdragons	Mokens	Pixawizards	Sneakyvampiresyndicate
Immortalplayercharacters	Monkeverse	Pixelapes	Soccerallstars
Immortalz	Monkeybet	Pixelcats	Societyofderivativeapes
Incognito	Monkeybrix	Pixelfoxes	Solarsystem
Infinityfrogs	Monsterbit	Pixls	Sorasdreamworld
Iwwonproject	Monsterbuds	Planetcrypto	Spaceboys
Junglefreaks	Moonboyz	Playertokens	Spacepoggers
Junkyarddogs	Mooncatrescue	Plutoalliance	Spacepunksclub
Kachiage	Moondogsodyssey	Pok	Spectralbeings
Kaijukingz	Moosestrax	Pokemonsalute	Spectralskellies
Keepcalm	Museumofmodernborpa	Polkamon	Spiderprime
Kennbosak	Mutantcats	Pootopia	Spookies
Kiddytos	Mutantmonsters	Pownft	Spookyboyscountryclub
Killfish	Mutantpunkscity	Primatesocialsociety	Spunks
Kingswap	Mutantpunksnft	Proceduralspace	Starcard
Kishuverse	Mycryptoasset	Projectdraca	Starcards
Kittyethpics	Mycryptogmx	Projectink	Starcats
Knightsofdegen	Mycryptons	Proofofbeats	Stargirl
Koalaintelligenceagency	Myfuckingpickle	Psychoteddylbears	Starsailorsiblings
Kryptonstarcard	Myhero	Pudgypenguins	Steveaoki
Ksoids	Myluckrabbit	Pugfrens	Stickdix
Kumoxworld	Mythwars	Punkachus	Stonercats
Lambduhs	Newoldcoins	Punkbabies	Streetdawgs
Lameloball	Nfft	Punkscapes	Stripperville
Laolu	Nftpromotion	Purrnelopescountryclub	Stripperville
Lazyboredapes	Nftrees	Rabbids	Strongapeclub
Lazybunnynft	Niftydudes	Rabbitdstoken	Stryking
Lazylions	Niftyfootball	Rarebunnyclub	Supercountries

# List of projects by segment

Supermassive	Whaleshart	Cryptoassaultunit	Leagueofkingdoms
Supershibaclub	Whattyclub	Cryptobrawlers	Ledgerofsabro
Superyeti	Wickedboneclub	Cryptocities	Loot
Surreals	Wickedcraniums	Cryptoconquest	Lordless
Surrogates	Wildcards	Cryptocup	Luchadores
Swampverse	Winterbears	Cryptoderby	Ludolabs
Sympathyforthedevils	Wobblebug	Cryptodozer	Megacryptopolis
Terravirtua	Womenandweapons	Cryptofighters	Megacube
Thealienboy	Womenrise	Cryptofights	Milliondollarat
Thebirdhouse	Woodies	Cryptominerworld	Minesofdalarnia
Theblocktimes	Wooshiworld	Cryptopioneers	Mlbchampions
Thedefiant	Word	Cryptopoopgame	Moonbox
Thediamondhands	Worldofwomen	Cryptorome	Motogp
Thedivineorderofthezodiac	X5badge	Cryptosaga	Mycryptoheroes
Thedogepongund	Xonarobotics	Cryptoserval	Mythereum
Thefirstdance	Yakuzacatsociety	Cryptospacecommander	Nagemon
Theglitches	Yeahammer	Cryptospells	NBA top shot
Thegoatsociety	Youcollect	Cryptowarriors	Neondistrict
Thegraveyardsale	Youtoken	Cryptowars	Neotokyo
Theheartproject	Yticons	Darkcountry	Nftredzone
Thehumanoids	Zenape	Darkwinds	Niftyleague
Thelostglitches	Zodiactalismans	Decimals	Niftyleaguedegens
Themodz	Zombiecats	Doperaider	Nonfungibleheroes
Theprojecturs	Zombiepenguins	Dopewars	Northernguilds
Thesevens	Zootoken	Dragongame	Peoplescasino
Thetigersguild	Zplitmusic	Ethbillboards	Pirateconquest
Thetokyoten		Ethbirds	Plasmabears
Thewildbunch	<b>GAMING</b>	Etherdrugs	Powh4d
Thewolgang		Etherdungeon	Pulsar79
Thorguards	Oxuniverse	Ethergen	Rebelbots
Thugpugs	50shadesoffether	Ethergoo	Riotcats
Timepieces	Acceditionchallengeloot	Etherkingdom	Rumblekongleague
Toddlerpillars	Afterorder	Etherlegends	Securityfund
Tokenswar	Ageofdragon	Ethermore	Sidusheroes
Tomsachsrocketcomponents	Avstars	Etheronline	Sipher
Toolsofrock	Axieinfinity	Etherorcs	Sorare
Tooncards	B2e	Etherscrolls	Spellsofgenesis
Topdogbeachclub	Battleracers	Ethertots	Splinterlands
Toyboogers	Blockchaincutes	Ethfighter	Staryfox
Tribesofwar	Blockcities	Ethtown	Subprimecrypto
Tropicalturtles	Blockletegames	F1deltatime	Superplayerequipment
Trustcollectible	Blocklords	Fightofanimals	Tavern
Twobitbears	Blockmagic	Footbattle	Thewonderquest
Twofacedpunks	Blockracers	Framecbattle	Tokenfighter
Ujobadges	Blockv	Glitchgoons	Tokenofinfection
Uncoolcats	Bloat	Godsunchained	Totalgame
Unicongo	Bravefrontierheroes	Guessthezeros	Treeverse
Uniqly	Burnup	Habboavatars	Vegascity
Unisocks	Chainbreakers	Hashdemons	Venusscramble
Universecoin	Chainguardians	Hashkings	Verynfty
Universexyz	Chainmonsters	Heroesofevermore	Voodoocity
Untamedelephants	Cheezewizards	Hewerclan	Voxies
Visitorsofimmadegen	Chibifighters	Imperialthrone	Warriders
Vogu	Cicadaspuzzleclub	Infinitystones	Warriorsofaradena
Vox	Coinssteel	Influence	Wizardsanddragongame
Voxodeus	Cometh	Isleofnan	Wolfgame
Walloonchain	Contractservant	Killaz	Zedrun
Wallstreetbets	Crazycrowschessclub	Kingdomsbeyond	Zethr
Wallstreetbulls	Cryptantcrab	Kinglovin	
Wanderers	Cryptia	Kiokumushi	
Wannapanda	Cryptoallstars	Knightstory	

**METaverses**

Arcona  
Cryptovoxels  
Decentraland  
Houseofkibaa  
Landemic  
Nftestate  
Nftworlds  
Ovr  
Polkacity  
Sommiumspace  
Spheroiduniverse  
StarlMetaverse  
Superworld  
Thesandbox  
Worldwidewebb

**UTILITIES**

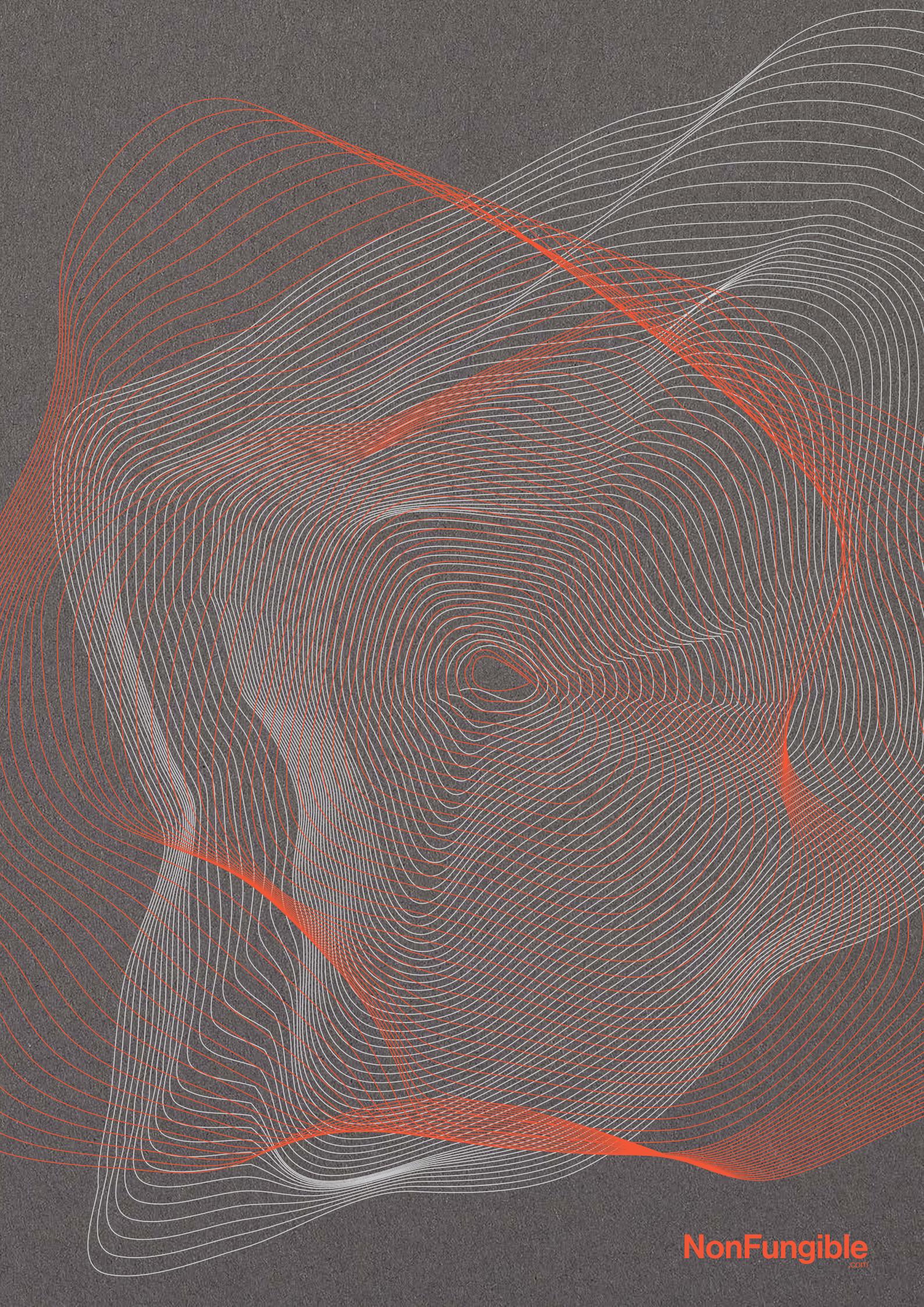
Oxchan  
Oxo  
Aether  
Aetheriandeel  
Alexmasmej  
Apexone  
Avatarecolodge  
Batlock  
Betooni1g  
Biffystamps  
Bitney  
Bitverk  
Blockvis  
Cargo  
Chaintgear  
Churchofthechain  
Cosmicwyverns  
Cryptobatesgroup  
Cryptocare  
Cryptolibraries  
Cryptonyc  
Cryptot  
Cryptotakeoversnft  
Cryptoweek  
Cycletoken  
Daorecords  
Dappcon  
Dcent  
Dclplazas  
Degofinance  
Devcon  
Distx  
Ensnifty  
Ethart  
Ethccparis  
Etherboy  
Ethercards  
Etherealny  
Ethereumnameservice  
Etholvants  
Ethparis

**Unlockprotocol**

Exclusive  
Factbar  
Foamsignal  
Fortuneteller  
Freejoseongenesisvisa  
Gittron  
Givingblock  
Gonetomars  
Growyourbase  
Hakkamooncake  
Ikbcachetdegarantie  
Impacttheory  
Incooom  
Infinites  
Insightsnetwork  
Interfacetoken  
J2tx  
Jenkinshealeat  
Kaurifamilylodge  
Kudostoken  
Legacycode  
Lianpaotu  
Loomlocknft  
Lootexforge  
Mathwallet  
Metacartel  
Methodnft  
Microsponsors  
Millionetherhomepage  
Mintable  
Mintbase  
Mirroreditions  
Moonbase  
Nametag  
Nftboxes  
Nftegg  
Nftfi  
Nftkred  
Nftnyc  
Nouns  
Nowtee  
Pixelate  
Poolsfyi  
Pooltogether  
Pooltogethor  
Postereum  
Printregistry  
Proofofartwork  
Proofoffattendance  
Radicards  
Reservedollar  
Ripicreditnetwork  
Royalsociety  
Sewerratsocialclub  
Socialmediamarket  
Squiddao  
Steadybreaks  
Superfan  
Thenproject  
Unitize







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