

April 9, 2021

## Cryptocurrency Research

To join our research distribution list, please click [here](#).

**Martin Gaspar, Research Analyst**  
martin.gaspar@crosstower.com

# A Look Into the Valuable Properties of NFTs

Ownership, history, and traits make NFTs attractive.

We explain how these are present in some of today's most valuable NFTs.

Non-fungible tokens (NFTs) have soared in popularity in just the last few months, but questions abound regarding NFT valuations. In this piece, we provide our thoughts on the components that we believe drive value in NFTs. We also examine how these attributes appear in some of the most valuable NFTs, as measured by average sales on NFT marketplace OpenSea, including CryptoPunks, Hashmasks, and Autoglyphs.

### What is an NFT?

A non-fungible token (NFT) is a digital token that is unique. An NFT typically bestows ownership to an object it represents: often digital art, virtual collectibles, and virtual items of some sort, each with distinct properties.

It helps to understand NFTs by considering fungible items, or tokens, which are not viewed as unique items. For example, an apple is typically accepted to be the same as other apples of its variety. Or, think of how a dollar bill is accepted for the same value everywhere in the U.S. Fungible items are not distinct and are thus viewed and generally accepted to be the same.

NFTs today largely exist on Ethereum in the ERC-721 and ERC-1155 standards, both of which have special properties that allow developers to specify the uniqueness of NFTs on the blockchain. A brief comparison of token standards is below:

**ERC-20:** Fungible version. Every token is viewed as the same (1 USDC = 1 USDC).

**ERC-721:** Every token is not the same. This standard requires the deployment of a separate smart contract to the blockchain for every type of token, which can be expensive.

**ERC-1155:** Combines certain aspects of ERC-20 and ERC-721. Allows for the issuance of both fungible and non-fungible tokens through a single smart contract. It also allows for batch transfers of tokens.

### Properties of NFTs

NFTs have several unique properties that make them desirable. A key one is provenance, the history of ownership, which is captured on the blockchain for all to see. You can verify the authenticity of an NFT through the blockchain itself, for example, by checking whether an NFT's contract addresses matches the one of the creator.

<u>Contents</u>	<u>Page</u>
NFT Overview .....	1
Valuing NFTs.....	2
CryptoPunks.....	4
Hashmasks .....	6
Autoglyphs .....	8
Disclosures.....	10

Additionally, NFTs offer the advantage of no, or limited, storage costs. Since NFTs exist exclusively on the blockchain, there are no direct storage costs associated with them. Contrast this with physical art, which takes up space and requires certain care. There is a market for fine art storage and insurance, leading to potentially significant costs. In contrast, the only storage cost for NFTs is crypto wallet security in our view.

### **The Ownership Attraction of NFTs**

In our view, NFTs are especially attractive for people who enjoy owning a masterpiece or unique item. NFTs generally do not provide the holders copyright ownership. Moreover, a digital item that an NFT represents is typically viewable via the browser or on the blockchain for all to see. Consequently, purchasers of expensive NFTs need to come to terms with having a digital item they own be on display to the public.

Observers who do not fully comprehend the value of NFTs tend to point to the public nature of the digital art or virtual item the NFT represents. They note that because they can simply take a screenshot of the digital art, they in theory have access to the same image at no expense. They pose the question – why would anyone pay large sums for NFTs when they can just view the item for free?

In our view, this thinking is flawed because it fails to appreciate the power of immutable ownership. It is our belief that NFT holders are largely indifferent to the fact that their NFTs are on public display and rather derive more enjoyment from owning them. The Mona Lisa is a great example – it is available for the world to see at the Louvre and is also just a Google image search away. But it is not nearly the same as owning it, with authenticity and proof of ownership permanently recorded on a public ledger (blockchain). In our view, NFT participants understand the significance of this kind ownership – they have a desire to not only look at the digital equivalent of the Mona Lisa, but to actually own it.

The fact that the digital art that NFTs represent tend to be publicly accessible can also add to the value of NFTs. If everyone can see and appreciate an impressive work of digital art, it can be all the more emboldening to be able to prove ownership of a popular work on the blockchain.

### **Valuing NFTs**

How do you value something that is completely digital, but unique? It is a question that has perplexed both the NFT community and observers. Some NFTs, most notably CryptoPunks, sell for significantly more ETH than certain other kinds of NFTs. Then there is the NFT equivalent of fine art, with Beeple's *EVERYDAYS: THE FIRST 5000 DAYS* NFT selling for approximately \$69.3 million of ETH in March 2021. At the same time, there are also seemingly thousands of NFT on sale on marketplaces such as OpenSea for amounts worth several hundred dollars or less, such as digital art, virtual items, and digital collectibles. What drives this seemingly arbitrary disparity in valuations?

Based on our observations, the disparity in NFT valuations comes down to several key factors:

**History and provenance.** Do the NFTs have any historical significance? Are they an early NFT? NFTs released in 2017 or even earlier are generally viewed as more valuable than others, given they are regarded to be among the first kinds of NFTs. CryptoPunks, for example, are generally considered to be one of the first NFT collections to come out, which is one reason many see them as valuable.

Another spin on history is the provenance of the NFT. Were there any notable holders of the same NFT previously? Perhaps a celebrity or crypto influencer owned it before. This can typically be verified on the blockchain, assuming the past owners have made their address public.

**Story.** Is there context to the NFT? Who was it made by and do they matter? What were their motivations to create it?

**Scarcity.** Is the NFT part of collection? How many similar NFTs exist? Is it the only one of its kind (1/1 edition)?

**Uniqueness/Trait Rarity.** How unique is the NFT? Is it original? Are there any NFTs that it is based on? If it is a part of a collection, how unique are its traits versus other NFTs in the collection? Were the traits algorithmically generated?

**Labor.** Was there considerable work in creating the NFT? For NFTs that represent digital art, how long did the artist spend on the piece? The Beeple NFT that sold for \$69 million represented the artist's work over many years, which many partly attribute its value to.

**Personality.** For NFTs that are part of collections, does the NFT seem to exhibit something unique to the beholder? This is often arbitrary.

**Physical tie.** Is the NFT tied to a physical item, complementing it? Can it be redeemed for a physical item, such as artwork? Having both a digital and physical ownership of an artwork or collection, could be considered valuable to some.

## Examining Some of the Most Valuable NFT Collections

### CryptoPunks

CryptoPunks, are widely regarded as one of the most desirable NFTs. Indeed, this is evident by their average sales price on the NFT marketplace OpenSea – for the 7 days trailing April 7, 2021, average sales for CryptoPunks totaled approximately 21.7 ETH (~\$43,000 as of April 7), across 170 sales. In fact, there have been multiple sales of CryptoPunks for the equivalent of millions of dollars' worth of ETH. CryptoPunk 3100, shown in Exhibit 1 below, sold for 4,200 ETH on March 11, 2021, approximately \$7.6 million at the time, according to data from LarvaLabs, marking a record CryptoPunk sale.

#### Exhibit 1. CryptoPunk 3100



*Source: OpenSea*

CryptoPunks are NFTs on Ethereum that represent 8-bit (pixelized) collectible characters. They are esteemed in the NFT community, given that CryptoPunks launched in June 2017, months ahead of the first widely used NFT, CryptoKitties (November 2017). Moreover, since they were one of the earliest NFTs, the ERC-721 token standard was not available yet, giving them a special place in history. Many credit CryptoPunks with inspiring the ERC-721 token standard many NFTs use today.

There are only 10,000 CryptoPunks and each is unique, featuring different looks, expressions, and accessories. The fixed supply bestows scarcity among the collection. Moreover, the distinct of features of each punk arguably make each one valuable.

Purveyors of CryptoPunks tend to closely examine the rarity of each feature, such as the five punk types:

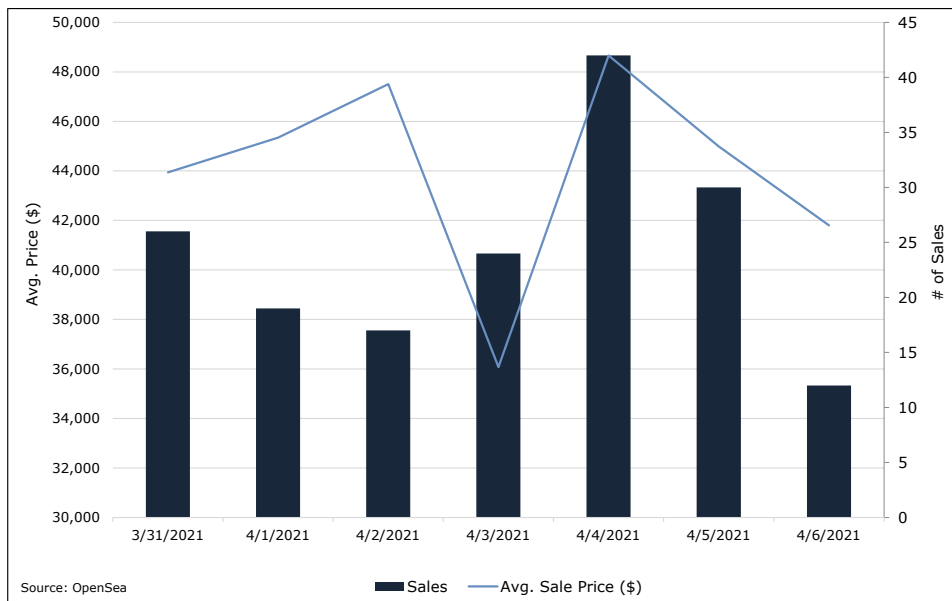
### Exhibit 2: CryptoPunk Types and Rarity

Type	Rarity
Alien	0.09%
Ape	0.24%
Zombie	0.88%
Female	38.40%
Male	60.39%

Source: LarvaLabs

According to *DappRadar*, there are over 80 attributes that CryptoPunks can exhibit, which include a Top Hat, Mustache, and Eye Mask. Each attribute can be rare, depending on how many other Punks also have it. Consequently, a Punk can be valuable not only from its type, but also depending on which attributes it has and the number of them.

### Exhibit 3. CryptoPunks OpenSea Sales Data, 3/31/21-4/6/21



As Exhibit 3 shows, CryptoPunks sales are not that frequent, most likely given their average price, which hovered between approximately \$36,000 and \$48,000 for the recent week analyzed.

## Hashmasks

Hashmasks is a relatively new NFT collection that launched in February 2021. As its website states, “Hashmasks is a living digital art collectible created by over 70 artists globally. It is a collection of 16,384 unique digital portraits.” Hashmasks have proven popular, with its average selling prices for the recent week in the ETH equivalent of several thousands of dollars. Exhibit 4 shows Hashmask 9939, which sold for 420 ETH on February 3, 2021 (~\$636,000 at the time), which still remains the highest-ever Hashmask sale as of writing.

### Exhibit 4. Hashmask 9939



Source: Hashmasks website.

Hashmasks were released in a tiered pre-sale, with earlier tiers offering Hashmasks for less ETH, up to the final tier, which involved 3 Hashmasks, each available for 100 ETH. The catch was that participants did not know which Hashmask(s) they would receive. The big reveal would come upon the conclusion of the pre-sale, upon which each mask was randomly distributed to its owners.

Pre-sale participants were taking a material risk that the NFTs they were purchasing would end up far less than they purchased them for. Furthermore, given that they did not know how their Hashmasks would look like, they were also taking a risk that they would be stuck with ones they may not like. Despite this, many users rushed to participate in the pre-sale, given 1) The surge in interest in NFTs throughout Q1 2021 and 2) The unique art styles used for Hashmasks.

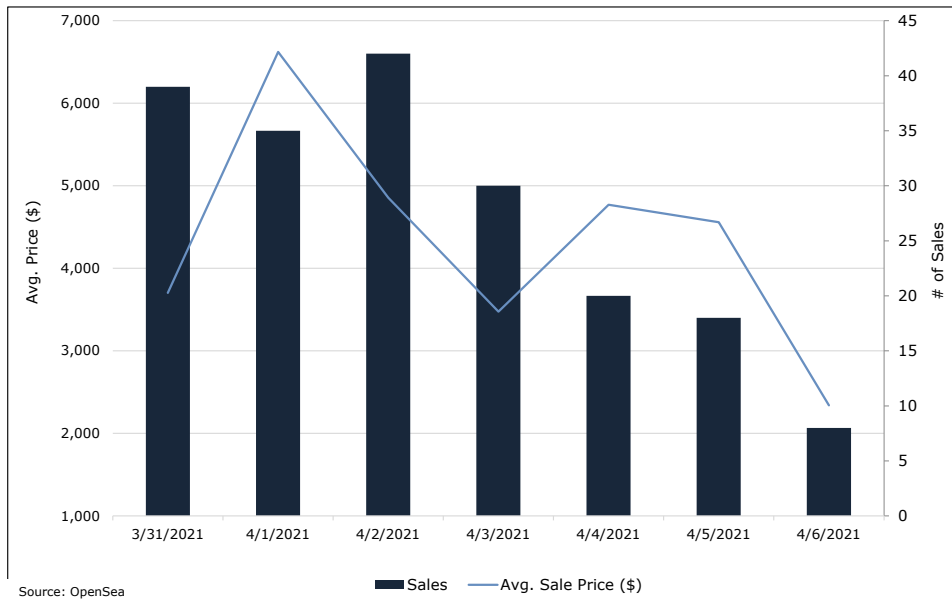
Just like CryptoPunks, Hashmasks are all unique and can be classified as rare or common based on their traits. The traits of Hashmasks includes masks, eye colors, backgrounds, items, among others.



In addition to their physical traits, Hashmasks are also able to be named via use of the 1,830 NCT tokens, which are consequently burned. No two Hashmasks can share the same name, adding another level of scarcity and distinction. Hashmasks holders accrue 10 NCTs per day for each Hashmask owned. Notably, however, participants in the Hashmasks pre-sale each received 3,660 NCTs per Hashmask purchased, enough for two name changes.

On January 26, 2031, or approximately 10 years from the launch of Hashmasks, the NCTs will cease to emit, leaving a finite amount of name changes for remaining Hashmasks and NCT holders.

**Exhibit 5. HashMasks OpenSea Sales Data, 3/31/21-4/6/21**

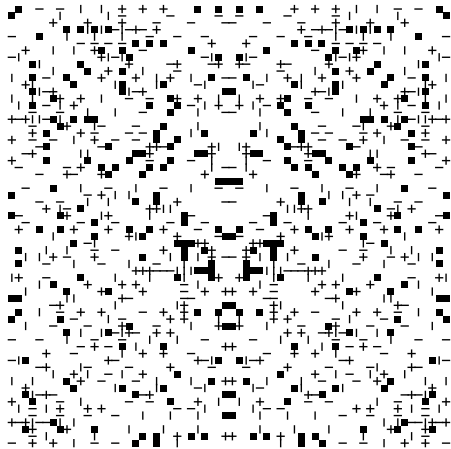


For the 7 days trailing April 7, 2021, Hashmasks have enjoyed an average sale price on OpenSea ranging from approximately \$2,000 to \$7,000.

## Autoglyphs

Autoglyphs, deployed to Ethereum mainnet in April 2019, are known as the first “on-chain” generative art on Ethereum, with each glyph created by code stored on Ethereum’s blockchain. Generative art is art that has been created by an autonomous system. Notably, Autoglyphs were created by LarvaLabs, which also launched CryptoPunks. Only 512 glyphs exist and each one is a distinct combination of patterns of symbols and spaces. Autoglyph #233, shown in Exhibit 6, holds one of the highest sales for an individual Autoglyph on OpenSea, fetching 155 ETH (~\$282,000) on March 29, 2021.

### Exhibit 6. Autoglyph #233



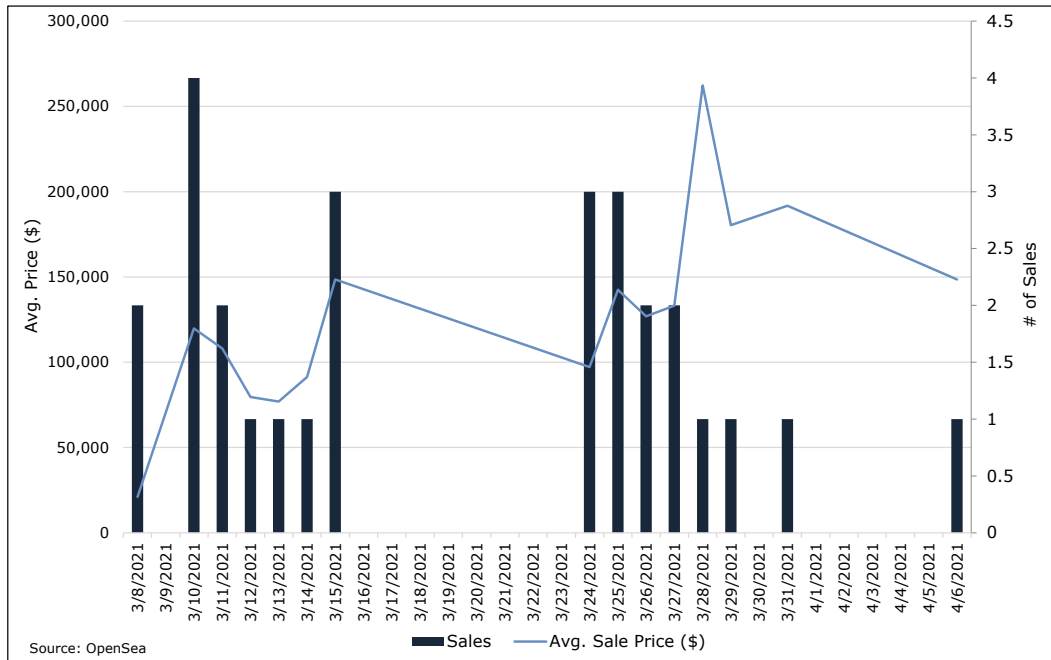
Source: LarvaLabs website.

With Autoglyphs, LarvaLabs aimed to solve one of the unique challenges of NFTs. Since it is often impractical to store images directly on the blockchain, given their size, many of the images that NFTs represent are stored on servers elsewhere. If the hosted image is removed or tampered with, there is nothing the NFT holder can do about it. In that scenario, all the NFT holder has is a record of ownership on the blockchain, but cannot access the actual image. For Autoglyphs, the code to generate each glyph is stored directly on the Ethereum blockchain, granting Autoglyphs holders an immutable means to access their art.

Autoglyphs are viewed as especially valuable since they are considered one of the first attempts at on-chain art. They also stand out by the nature of their patterns and black/white colors, which certain NFT participants view as eye-catching pieces to display in their virtual art galleries.



**Exhibit 7. Autoglyphs OpenSea Sales Data, 3/8/21-4/6/21**



As shown in Exhibit 7 above, Autoglyphs trade far less frequently on OpenSea over a recent 30-day period, relative to what we see with CryptoPunks and Hashmasks, with several days of no sales. In our view this is due to the relatively low supply of Autoglyphs versus other NFTs, as only 512 glyphs exist. At the same time, they clearly command strong prices when sales do occur, with most sales over the period above the equivalent of \$50,000 of ETH.

## DISCLOSURES

This is a summary of NFTs from a commercial perspective. Entities that invest in NFTs should seek legal advice related to what they may own from a legal perspective, such as intellectual property rights, commercial rights, among other rights. There is also a certain lack of clarity as to what the global nature of this asset class is and the enforceability of certain rights in various legal jurisdictions. There are risks related to the private keys and storage of the media, among other risks. People should do research, possibly including tax counsel, when exploring issues related to NFTs.

Nothing herein is tax advice. You should consult your own tax professionals in order to understand the risks of investing.

The research team may own the cryptocurrencies mentioned in this report, and as such this should be seen as a disclosure of any potential conflict of interest. This report belongs to CrossTower and represents the opinions of its research team.

CrossTower is not a FINRA registered broker dealer or investment adviser and does not provide investment banking services. This report is not investment advice, it is strictly informational. Do not trade or invest in any tokens, companies or entities based solely upon this information. Any investment involves substantial risks, including, but not limited to, pricing volatility, inadequate liquidity, and the potential for complete loss of principal.

Investors should conduct independent due diligence, with assistance from professional financial, legal and tax experts, on topics discussed in this document and develop a standalone judgment of the relevant markets prior to making any investment decision.

CrossTower does not receive compensation from the companies, entities, or protocols they write about. Compensation is not received on any basis contingent upon communicating a positive opinion in this report. The authors were not hired by the covered entity to prepare this report. CrossTower did not receive compensation from the entities covered in this report for non-report services, such as presenting at author sponsored investor conferences, distributing press releases or other ancillary services. The entities covered in this report have not previously paid the author in cash or in stock for any research reports or other services. The covered entities in this report are not required to engage with CrossTower.

The research team has obtained all information herein from sources they believe to be accurate and reliable. However, such information is presented “as is,” without warranty of any kind whether expressed or implied. All market prices, data and other information are not warranted as to completeness or accuracy, are based upon selected public market data, reflect prevailing conditions, and the research team’s views as of this date, all of which are accordingly subject to change without notice. CrossTower has no obligation to continue offering reports regarding this topic.

Reports are prepared as of the date(s) indicated and may become unreliable because of subsequent market or economic circumstances. The graphs, charts and other visual aids are provided for informational purposes only. None of these graphs, charts or visual aids can and of themselves be used to make investment decisions. No representation is made that these will assist any person in making investment decisions and no graph, chart or other visual aid can capture all factors and variables required in making such decisions.

The information contained in this document may include, or incorporate by reference, forward looking statements, which would include any statements that are not statements of historical fact. No representations or warranties are made as to the accuracy of such forward looking statements. Any projections, forecasts and estimates contained in this document are necessarily speculative in nature and are based upon certain assumptions. These forward-looking statements may turn out to be wrong and can be affected by inaccurate assumptions or by known or unknown risks, uncertainties and other factors, most of which are beyond control. It can be expected that some or all of such forward looking assumptions will not materialize or will vary significantly from actual results.