

Twitter Thread by Piers Kicks ■■



Piers Kicks ■■

[@pierskicks](#)



1/ Yesterday I pushed out a report covering the various angles of growth observed across the NFT ecosystem.

2020 was a monumental year for NFTs, and the stage is well and truly set for another record-setting year in

2/ For those of you new to the topic, take a moment to familiarize with what non-fungible tokens are as well as how they might become a core driver of the evolution of online content.

Don't be afraid to let the imagination wander!

Non-fungible assets are exactly as they sound: unlike fungible tokens (e.g. ERC-20), each NFT is unique and cannot be freely interchanged. An NFT is a type of cryptographic token that is used to represent ownership as well as uniqueness of natively digital things. For example, swapping one house for another house is not the same as swapping one dollar for another dollar; the latter is fungible whereas the former is not. As such, NFTs are not mutually interchangeable with other tokens in the way an asset like bitcoin might be. Examples include crypto art, game assets, digital collectibles, domain names, and even tokenized representations of real-world assets. Due to their standardization, we are beginning to see the emergence of a universal digital representation layer which could turn out to be a core primitive for the future web. As global internet penetration rises and more content than ever is being produced, a decentralized mechanism for the issuance and management of scarce digital things, including intellectual property, could prove to be a critical tool in unlocking the creator economy and novel business models.

Key Benefits of NFTs

Standardization

In the same way there exists standards for things like content (e.g. file formats such as .jpg), and the protocols that make up the internet (e.g. TCP/IP), there are emerging NFT standards (e.g. ERC-721). We can now think about storing digital things ranging from game assets to event tickets, all in the same 'language'.

Interoperability

These emerging NFT standards allow tokens to freely move between different ecosystems. Developers can easily build on top of previous NFT sets, enabling new forms of community cross-pollination. This is enabled by open standards that provide well-defined, consistent formats for both reading and writing data.

Programmability

Like most digital assets, NFTs are programmable. In the realm of virtual items, this unlocks several new dimensions of design space. Importantly, NFTs can behave just like traditional assets and can be leased and collateralized to generate cash flows. Their usage in DeFi is only just beginning.

Scarcity & Immutability

Smart contract functionality surrounding NFTs allows developers to etch certain properties into the tokens such that owners can be assured that not only are their NFTs scarce, but that no others with the same attributes can be created in the future. Their detailed provenance is also an attractive feature for many applications.

Liquidity

NFTs enable the ability to trade items on completely open marketplaces. Today, it is often difficult to find liquidity for items online. Be it a game item, or an event ticket, existing markets are fragmented and carry varying degrees of risk. Global liquidity pools for virtual assets are gradually forming with reduced transaction risk.

Digital Property Rights

For a long time now, users have willingly transacted value for virtual goods that sit in heterogeneous centralized servers that are owned by a single company, provide no way to generate cash flows, and offer no real ownership or control prospects for the user. That is all changing as NFTs redefine digital ownership.

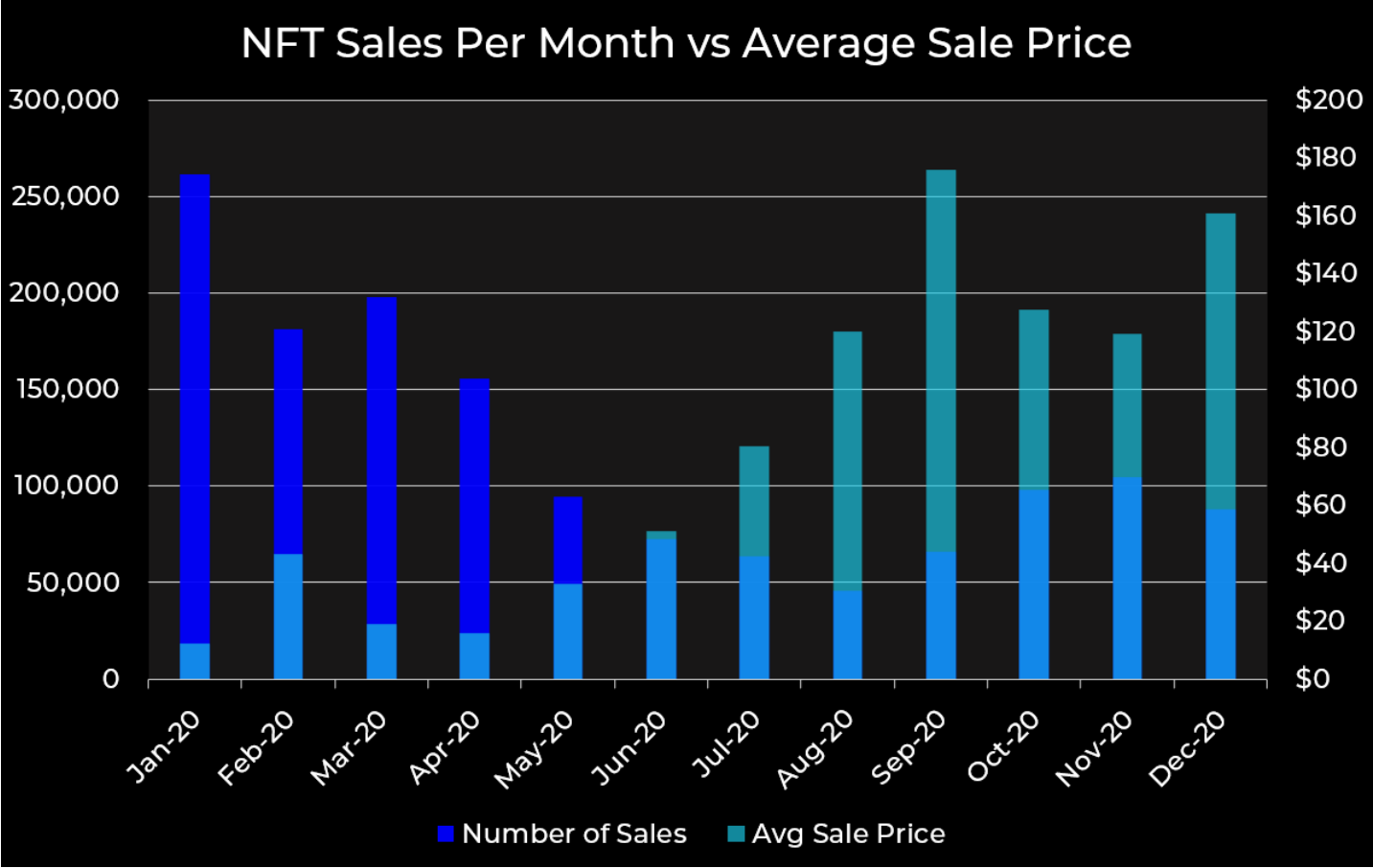
3/ Whilst data remains relatively fragmented, the numbers of active marketplace users is clearly growing with almost \$90M in sales.

■ Largely driven by 4 major categories:

- Crypto Art (>\$20M)
- Crypto Sandboxes/Virtual Worlds (>\$16M)
- Video Games (>\$15M)
- Collectibles (\$16M)

4/ The dip in marketplace activity due to high gas fees during the "DeFi Summer" is notable: as activity and sales declined.

Interestingly, we see that throughout the year the amount of NFTs sold per month declined whilst average sale price went up.

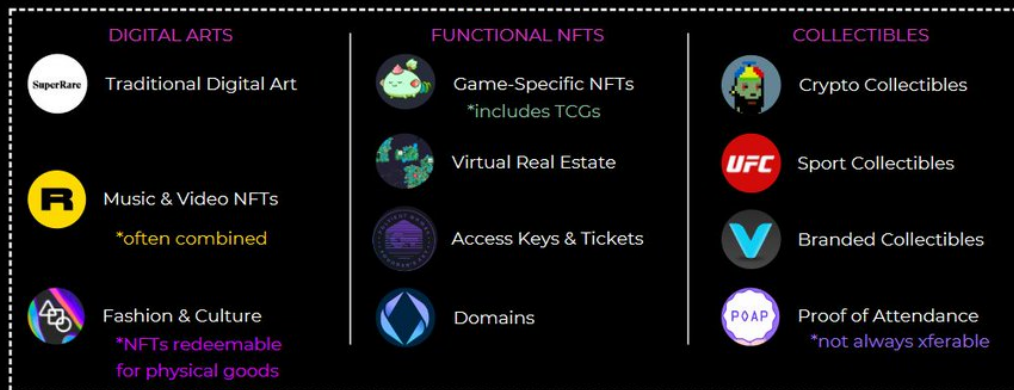


5/ This is likely indicative of gas fees forcing users to focus on buying quality over quantity, whilst smaller transactions on mainnet were prohibitively expensive forcing them to shift to layer 2s such as Matic, or not take place at all.

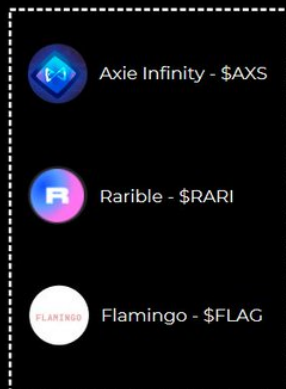
6/ We have seen a dramatic expansion of options for investment as more projects explore tapping into this emergent universal digital representation layer.

Meanwhile, there's maturing financial infrastructure for things like fractionalization, indexing, and lend/borrow activity.

Individual NFTs



NFT-Related Governance



Financial Infrastructure



Social Tokens



Other



Note: Categories are non-exhaustive.

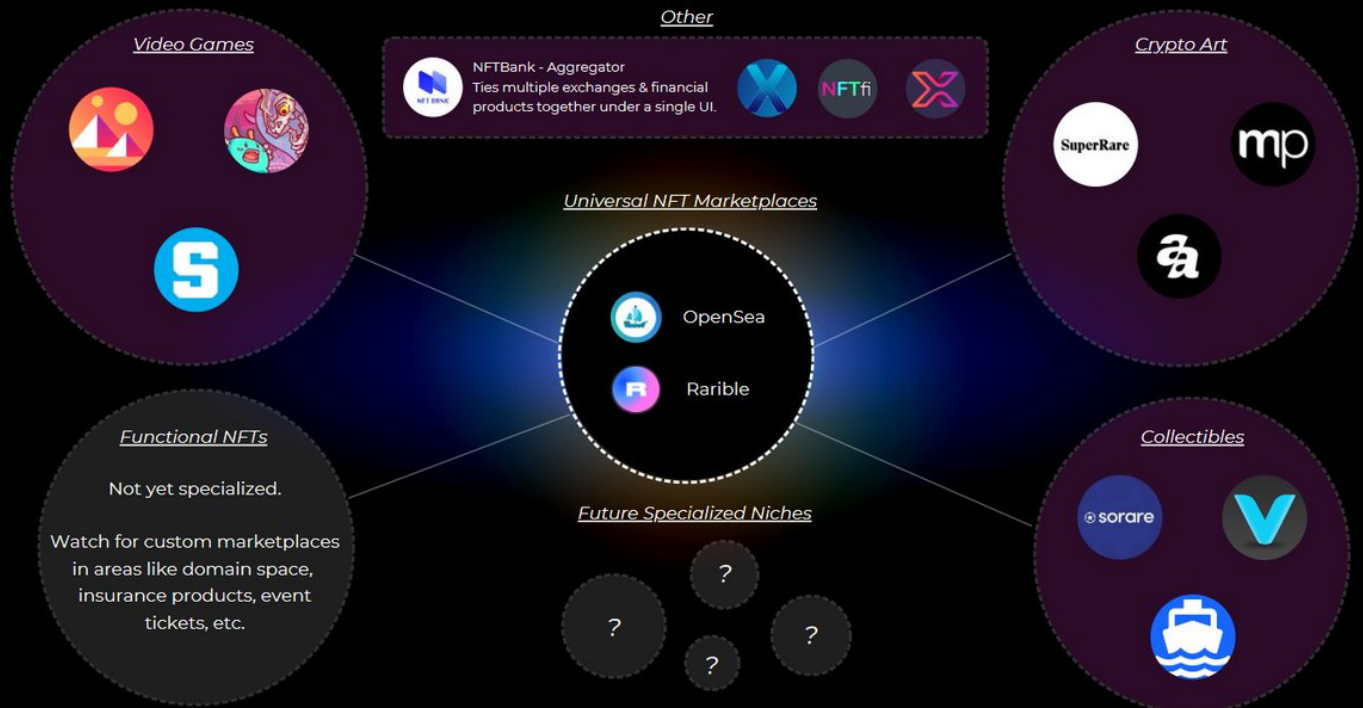
Source: Delphi Digital

7/ The exchange landscape remains dominated by the universal marketplaces, but we are seeing activity fracture into specialized venues.

We expect this trend to continue as in the long run, not all users will be happy to mix focus and governance cross-category.

Exchange Landscape

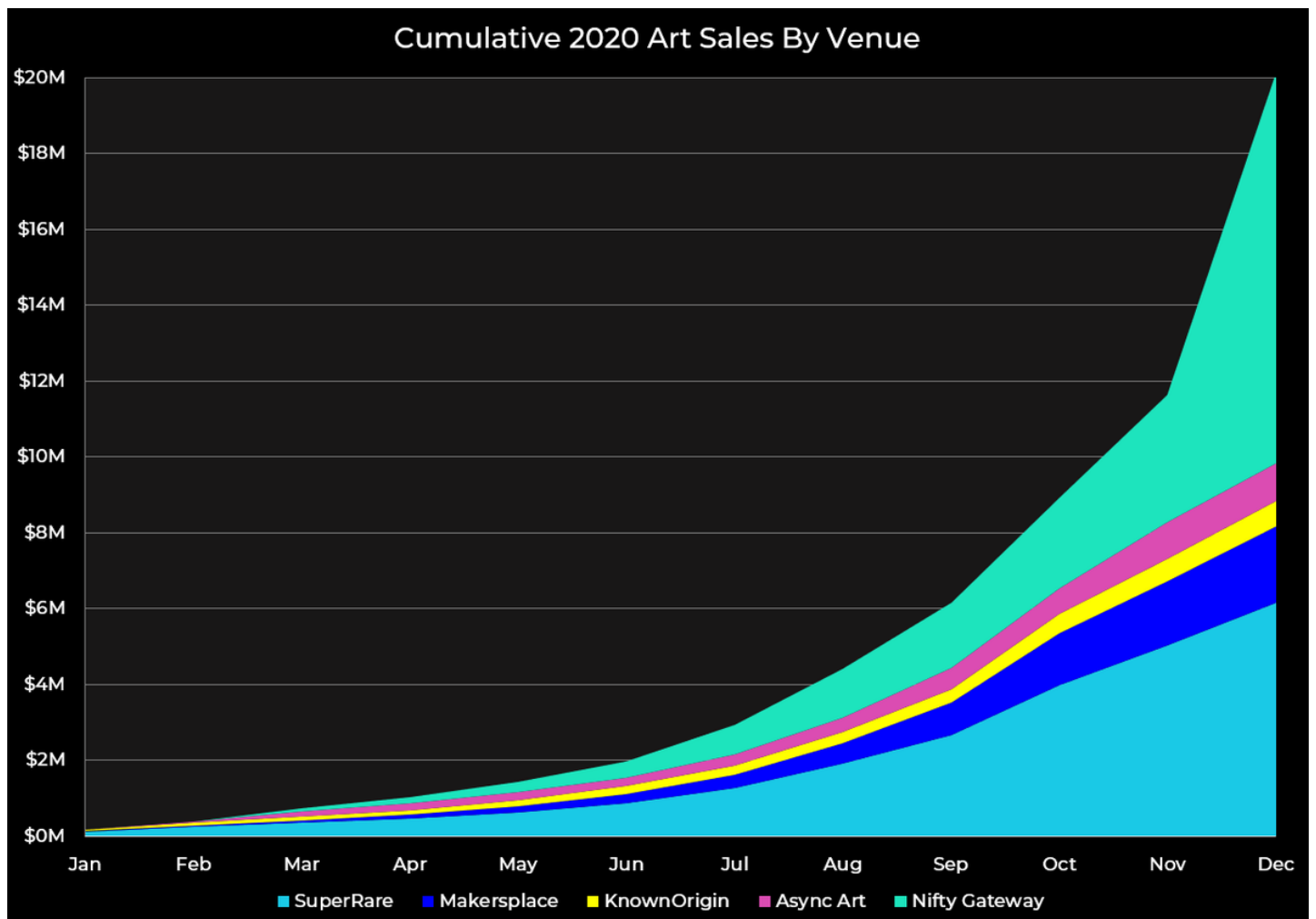
As it stands, the vast majority of NFT exchange activity takes place on the universal markets that underpin the ecosystem. The OpenSea API is actually referenced by the majority of projects and marketplaces in the space. As individual categories or projects achieve escape velocity, exchange venues appear to splinter into increasingly specialized niches. We expect this trend to continue as crypto provides the tools to form robust microeconomies around small communities. In the long run, gamers are unlikely to want to mix or be governed by artists (and vice versa). At the other end of the spectrum, we are beginning to see aggregation platforms such as NFTBank emerge that provide a single interface through which users can access a range of marketplaces and financial products (*links for each below*).



Source: Delphi Digital

8/ Crypto Art was arguably the breakout NFT sector of 2020. It's clear that this category has found product-market fit earlier than others.

This is perhaps attributable to the clear value propositions to both collectors and creators, alongside fewer scalability concerns.



9/ Nifty Gateway exploded onto the scene by drawing in talented creators from outside the ecosystem to participate in their drop model.

Their pipeline seems as full as ever with [@JustinRoiland](#) next Tuesday!

Eager to see if other exchanges do similar.

<https://t.co/ww4Yel3Oz0>

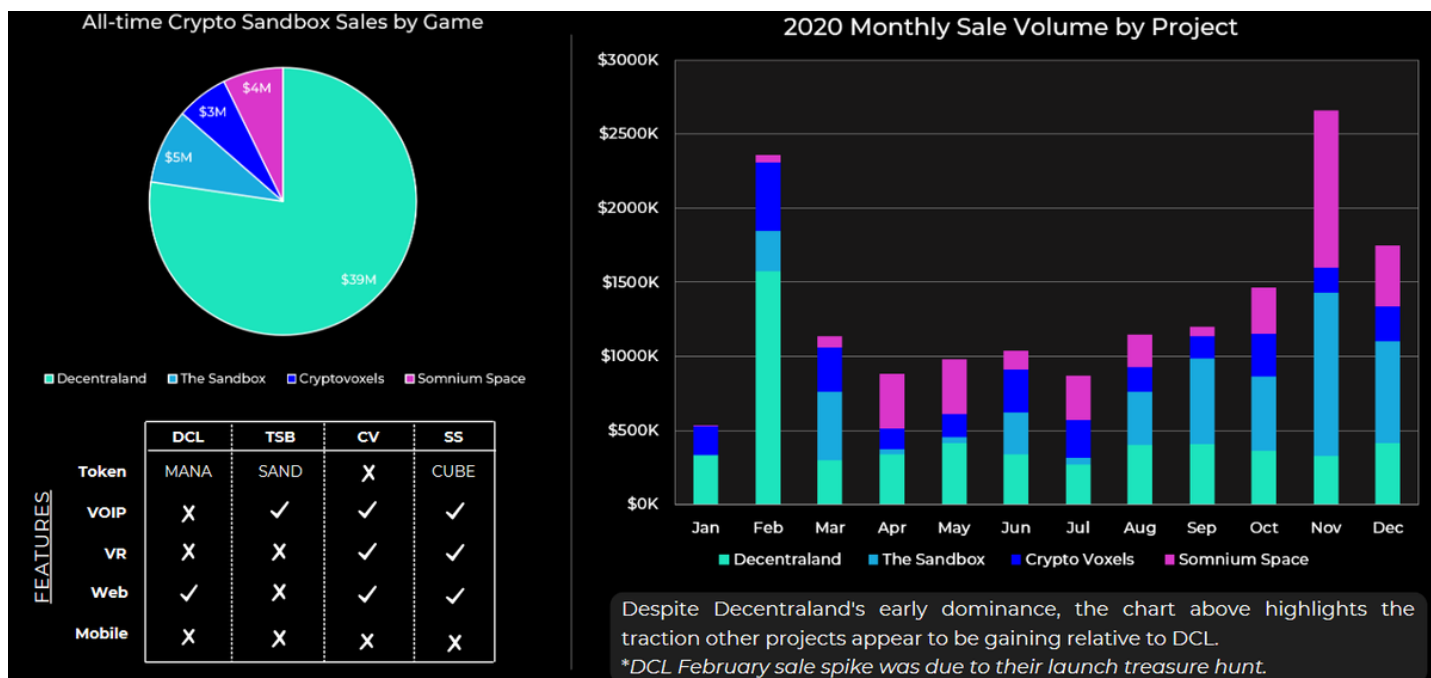
1/ Today I pushed out a note to [@Delphi_Digital](#) subscribers covering the monumental milestone that this past weekend marked for [#cryptoart](#) with [@beeples](#)'s [@niftygateway](#) drop. <https://t.co/amkBmYiwsA>

— Piers Kicks \U0001f9e0\U0001f50c ([@pierskicks](#)) [December 14, 2020](#)

10/ The four leading crypto sandboxes continue to battle it out. These are places and platforms as much as they are games.

The projects remain largely distinguished by community and aesthetics rather than stand out feature sets.

<https://t.co/OS7JbgtZm6>



1/25 Today I touched upon the recent Roblox S-1 filing as it relates to the nascent blockchain-based virtual worlds or Crypto Sandboxes as I like to call them.

The [@Roblox](https://t.co/BDeqqXj17R) IPO is a landmark event and represents the first pure, public Metaverse play.

— Piers Kicks \U0001f9e0\U0001f50c (@pierskicks) November 23, 2020

11/ Crypto Games:

- New biz models unlocked
- Higher ARPUs than traditional game industry
- 700K game assets sold in 2020
- Axie grew users 11.6x
- Play to Earn exploding in emerging markets

New tools to:

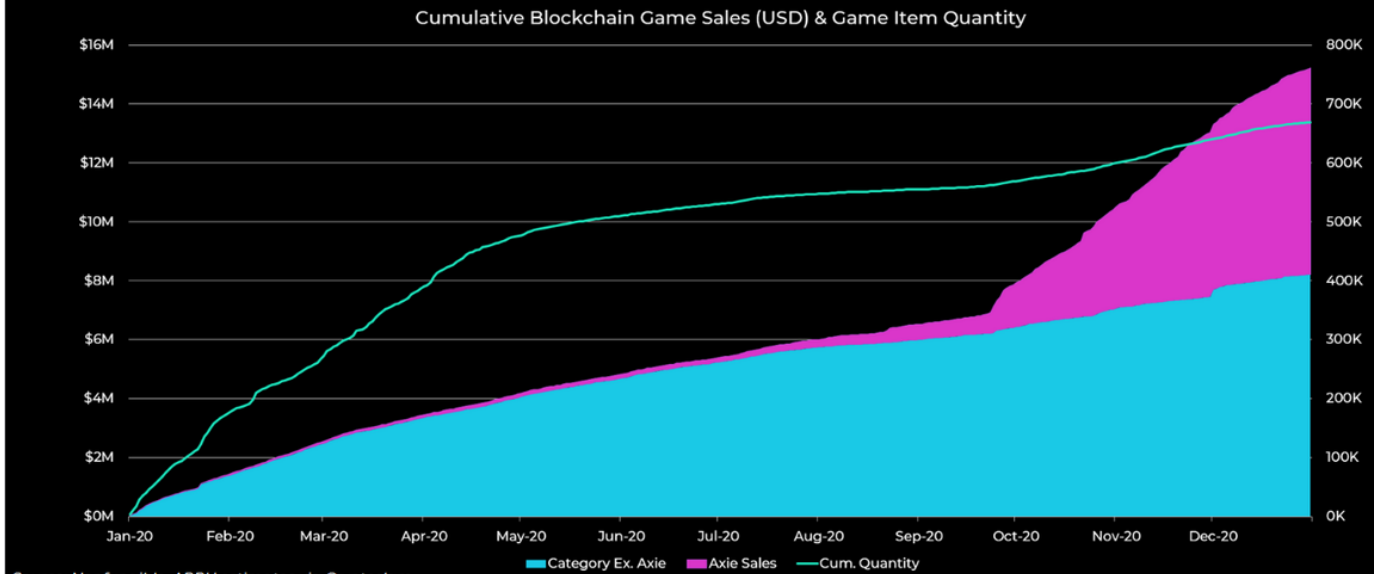
- Bootstrap adoption
- Promote loyalty
- Enable community governance

Category: Video Games



DISCLAIMER: DELPHI DIGITAL BUILT AND INVESTED IN AXIE INFINITY'S GOVERNANCE TOKEN AS WELL AS INDIVIDUAL AXIES.

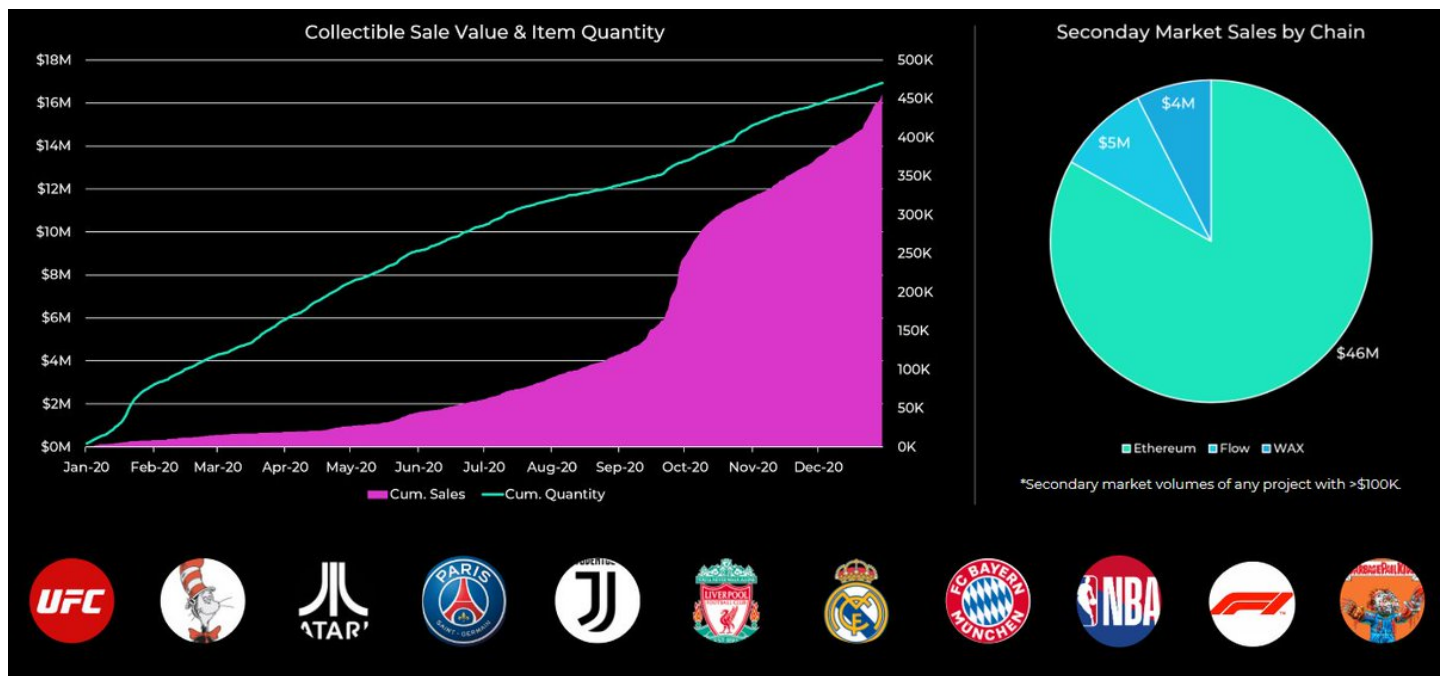
In 2020, almost 700,000 crypto game assets were sold across leading games such as MyCryptoHeroes, League of Kingdoms, and Gods Unchained for a total of \$15M. Notably, developers in this space are beginning to take account of the new tools and economic realities in game design. Within crypto games, there are new mechanisms for bootstrapping adoption, promoting loyalty via meaningful ownership, and inviting participation from the playerbase in governance decisions. We are beginning to see the holy grail of customer acquisition, driven largely by evangelism from the early user base. Not only that, the ARPUs observed in these new games are dramatically higher than what we observe in the traditional game industry. Whereas a game like Pokémon GO might average \$1-5 per user, Axie Infinity is seeing over \$100 per owner. Taking account of the disclaimer above, it's hard not to draw attention to Axie Infinity as a primary example of these tools driving explosive growth. The project grew its holder base by 11.6x throughout the year, reaching over 3000 DAUs by December. Alongside Crypto Art investing, the underlying "Play-to-Earn" game model appears to have found particular resonance in emerging markets such as the [Philippines](#).



12/ The collectibles market has seen strong activity driven by sports-themed projects such as [@SorareHQ](#) and [@nba_topshot](#).

[@flow_blockchain](#)'s flagship NBA title did more secondary market volume in its first year than the Top 10 WAX projects combined.

More brands and IP in 2021.



13/ [@maticnetwork](#) + [@Immutable](#) lead the ETH NFT scaling charge. If successful at scale, L2s could erode the core value propositions of purpose-built chains like Flow.

Competing chains risk undermining the "universal digital representation layer" concept.

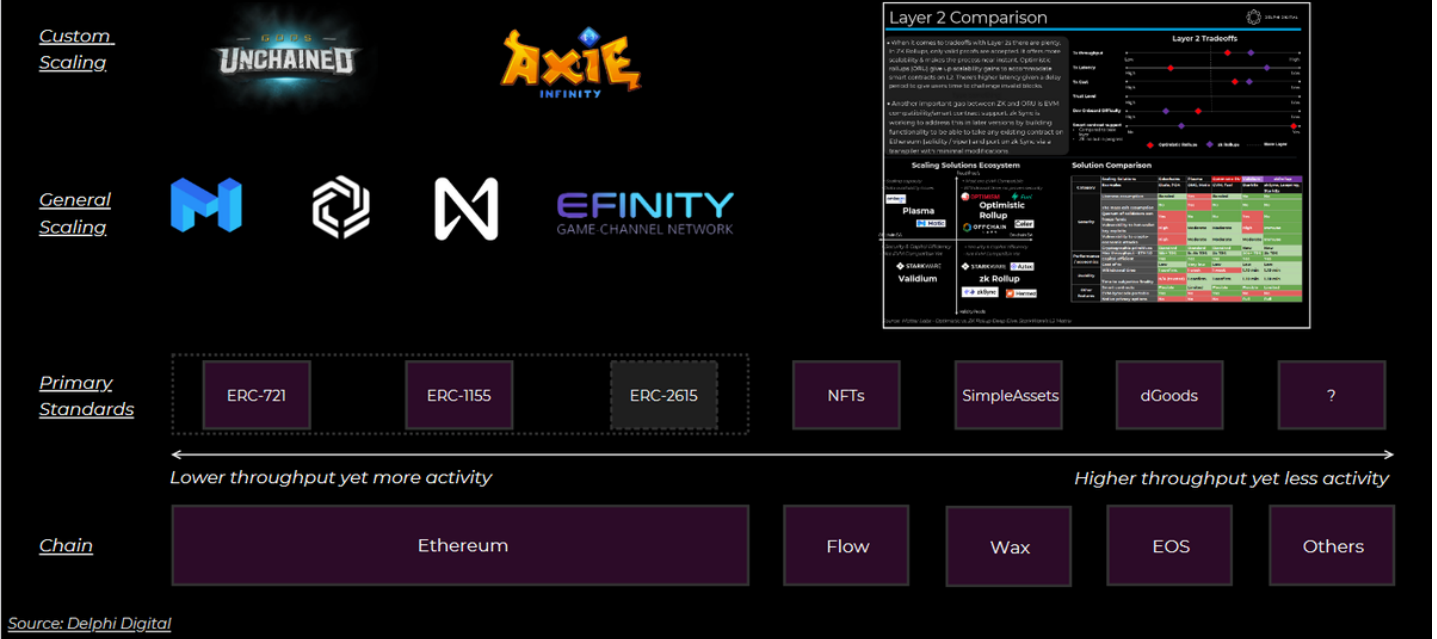
Time will tell.

NFT Scaling Solutions



It's no secret that gas fees continue to hinder the user experience on Ethereum across a variety of applications; games and NFTs are often particularly hard hit. Well-capitalized purpose-built chains such as Flow (Dapper Labs) have recognized this an opportunity and have already begun to roll out popular experiences on the new network. That being said, Ethereum's deep ecosystem support is not to be underestimated. Scaling solutions appear to be making progress and the large-scale success of any of them could well undermine the core value proposition of more "performant" chains. Interestingly, some projects such as Axie Infinity are recognizing this as such a critical piece of infrastructure that they would rather engineer a custom solution in-house. If generalized solutions fail to deliver or are deemed too costly, we could see more of this. If projects like Flow do take off, then we risk fracturing the still nascent space and potentially undermining the concept of a "universal digital representation layer" from which NFTs may derive a portion of their value.

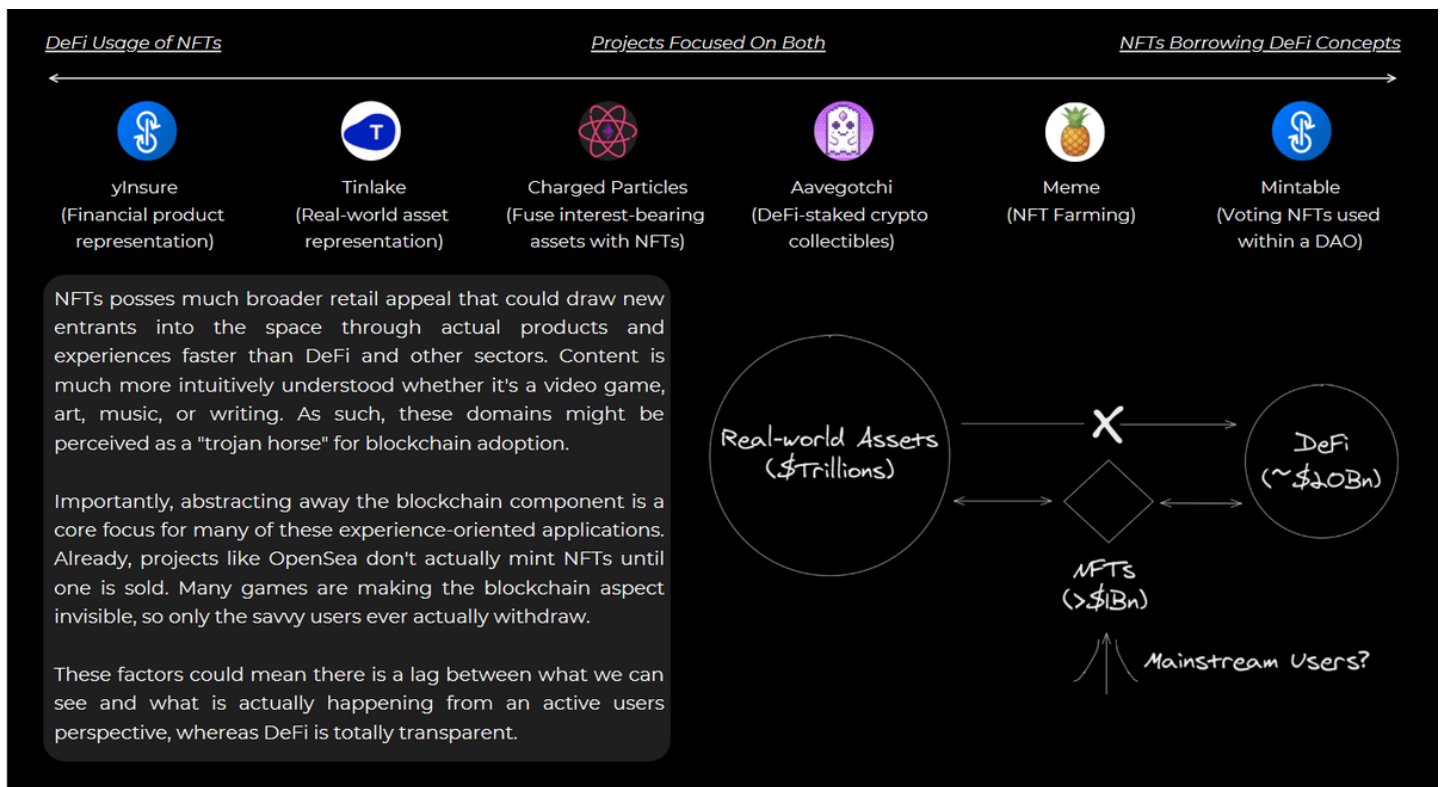
**For a deeper dive into Ethereum scaling see our report [here](#).*



14/ Lastly, we touch upon the DeFi-NFT Symbiosis.

DeFi brings NFTs additional utility and financial infrastructure, NFTs will bring DeFi a universe of collateral including real-world assets.

<https://t.co/VucgPZ75MW>



1/ In yesterday's note, I covered the DeFi <> NFT symbiosis and explored how the two are mutually beneficial.

The 2020 DeFi summer drove gas fees to intolerable levels for many NFT activities. Whilst it seemed like a curse, it may have been a blessing...<https://t.co/pDIZYN8P3k>

— Piers Kicks \U0001f9e0\U0001f50c (@pierskicks) January 7, 2021

fin/ More in the report!

If you're not yet subbed to Delphi Digital you're missing out.

Get ahead of the game.

<https://t.co/lpSYz47S7o>