



Exploring the Scope of NFTs

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ABSTRACT

Non-Fungible Tokens (NFTs) are digital properties and/or assets that would be something like an artwork, a collectible, an in-game purchasable object etc. They may be traded online, often in exchange for cryptocurrency, and are encoded within digital contracts on a blockchain. Masses assumed that it could revolutionize the society in some way, and this is precisely the reason why they've such high sale/resale price. However, there is not much available information about the general structure and evolution of its marketplace, like how this contemporary trend is sweeping the internet worldwide, how are they selling for such large costs, or how an easy 5-word tweet become capable of selling for about 2.9 million USD, or why a JPEG photograph is offered for 69 million USD. And if that wasn't sufficient, the National Basketball Association the (NBA) itself is promoting and selling little moments of its basketball matches for loads of thousands of dollars. Those are all kinds of digital matters, and people are shopping a version of them by paying a lot of money. Apparently, people are inquisitive about it. And all of this is plenty bigger than a \$600,000 CAT gif. We analyzed the NFT marketplace and are presenting a short document on what this trend is all about. Why these NFTs are both an exceptional invention and a trouble, and the correct method to put your money into NFTs.

KEYWORDS: NFT, Token, Blockchain, Cryptocurrency, OpenSea, MetaMask

INTRODUCTION

NFT is a piece of information that is stored over a blockchain^[8] which confirms that a virtual asset is unique. Therefore, it is non-interchangeable, even as offering a distinctive virtual certificate of ownership for that NFT. In general, NFT lets in to set up the provenance of the virtual item, presenting undeniable answers to questions like who is the owner of it, who owned it previously, and who minted it in the first place, in addition to which of the numerous copies is the authentic. The NFT market exploded in 2021 while it got a lot public interest, and their marketplace reported record breaking sales^[1]. Several forms of digital items could may be related to the term NFT including pictures or motion pictures or audio tracks. NFTs are being utilized to **commercialize** digital items for different purposes, along with sports collectibles,

gaming and mostly artwork. Initially, NFTs used to be a component of the Ethereum blockchain; however, an increasing number of blockchains have carried out their very own variations of NFTs.

WORKING

So, the order in which our economic system works is, we work and acquire money, and then that money is what we use to purchase goods. However, the more time we are spending on using digital applications like Instagram and Facebook, and all the extra time we are wasting on digital games like Fortnite, the more our purchases are moving far away from the physical items towards virtual items. But it gives rise to a problem i.e., virtual items are more difficult to monetize.

So, assume that you make a physical portrait artwork. Now you attempt to sell it to people at some market (physically). Despite the fact that someone attempts to copy your portrait or maybe click a photograph of it and gets a printout of your artwork, it will not have any effect on you too badly. Due to the fact, that an expert would be capable of telling us by looking at the brush strokes, that the portrait you have, is original. However, that would not have been the case if you were a digital art maker, who has painted the same portrait on your iPad. Because the second you release the art in public as a digital image, you'll no longer have any authority over that artwork. It could be now stolen with a right click and obviously to the naked eye, it will look same as the real one. Therefore, the art is not a scarce resource now and as a result, the cost goes down dramatically.

This might be, what we believe, NFTs could be seeking to change^[3]. The phrase NFT is abbreviation for Non-Fungible Token. The word Fungible means Interchangeable like currency. Like my Rs.10 note is interchangeable with someone else's Rs.10 note. And similarly, something non-fungible means that it is not interchangeable. NFTs are using blockchain technology with a purpose to confirm who owns the real of a digital product (maybe even out of several copies). They are a distinctive token of ownership which also has its own value^[8]. Hence, whilst people are shopping for NFTs, thereby also promoting them, they actually are shopping for and selling their digital possession over something.

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ADVANTAGES

Some advantages to these tokens are listed below:

1. **Earning:** Picture yourself a fashion designer. Now, what you've got as NFT is a new style of earning. Also, for the people who admire your artwork, they have gained a totally advanced system to help you ^[6]. In place of simply transferring a donation amount through PayPal, to which they may be sourced by any of your existing social media account, they now will also be getting a piece of your history.
2. **Contracts:** NFTs, without a doubt, are quite a break-off to lengthy-written and uninteresting contracts by means of changing it with virtual contracts- which outlines the rules in a very efficient way according to which NFTs function. As an instance, a basic rule could be set up by a designer for receiving a 20% cut whenever their artwork is sold or purchased. This is like a digital royalty settlement.
3. **Collectors:** NFTs are still a dream to a lot of collectors. The reality is, they do absolutely nothing. It sounds kind of foolish, that there is a part of population out there, who feels delighted to know that they own a rare piece. Simply take the instance of buying and selling trading cards. You cannot pay for anything using them. They cannot be used as cash, but still, a Charizard Pokémon card was sold and bought for \$220,000, only because it's uncommon, it's rare and difficult to find. Therefore, by the means of NFT, the fact that you might be the sole owner of a token to a rare virtual piece, validated by a completely fraud proof system, we can compare how it would give the collectors a comparable thrill of owning something rare ^[10].
4. **Investments:** It's no longer just the creators, anyone, literally all of us, can money off NFTs due to the fact that they are tradable. Every NFT has its own market price. There are several instances similar to the one considered here. The CRYPTO PUNK face (*fig.1*), initially went for not more than \$30 and lately was bought for \$11.75 million. More importantly, this NFT marketplace is viewed as a more viable option to invest unlike the stock market, for which you need a capital to start with and also involves risk and hence might be intimidating for a variety of people, or the real estate and housing which requires a lot of money to simply get you started.



Figure 1. NFT Crypto Punk

5. **Community:** NFTs deliver humans a feel of belonging. A big reason why people buy it, is to identify themselves

as a part of some club. There is this one stock of NFTs recognized as the Bored Ape Yacht Club (*fig.2*). 10,000 of distinctive ape pictures, from which the cheapest one is going for over \$200,000. However, you will very frequently notice that people who are buying it, are using it everywhere. It's like a sign of satisfaction as well as pride for being a part of this elite group. And the cherry on top is that the sole maker of the Club organizes real life meetings (more like casual events) for owners of these NFTs (This one is special case in this scenario).

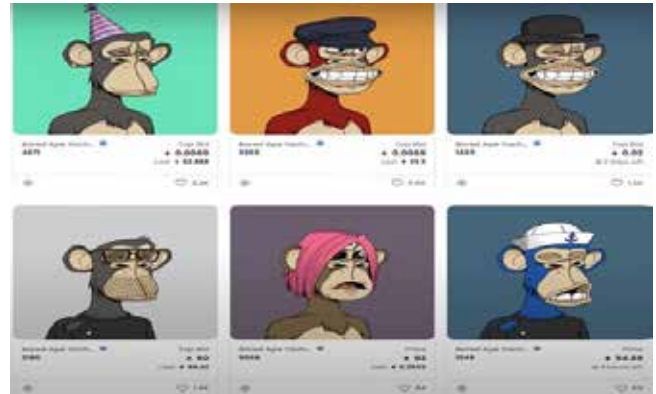


Figure 2. Bored Ape Yacht Club listings

PROBLEMS ASSOCIATED WITH NFTS

Even though we absolutely trust the core blockchain technology of NFTs and its advantages, the greater we learn about how they are being used in the real world, the greater of a concern it becomes.

1. **Possession:** An NFT isn't what a variety of people suppose it is. In case you have an NFT of an artwork, even as you still have the possession over it, like the actual ownership, you are not the actual proprietor. Owning the NFT of a design, doesn't give you rights of the design. It does not imply that now you can print T-Shirts with that design on them and sell those. It just means that it proves that the NFT is your property but only through one system of identifying and acknowledging, what counts as your private property ^[7]. Basically, just a little greater than bragging rights.
2. **Greed:** Despite the fact that NFTs may have started as being all about supporting the artists, right now majority of them are not being made by any artists who are going all out with their heart and soul to create an art piece. In reality, they are produced via opportunistic money minded individuals who simply view them as quick cash-ins. For instance, have a look at Lazy Lions (*fig.3*). It's another collection of 10,000 particular high-priced avatars. If you examine this series carefully, you will see that some of the expressions keep reappearing. That is due to the fact that Lazy Lions aren't the paintings of a passionate person who's honestly seeking to design individually distinctive characters. They are just computer-generated mass-produced cash grabs. A person probably realized that NFT Ape's sales are going through the roof, hence, they've simply picked some other animal, drawn a few different avatars and maybe used a coding algorithm which translates to – "use these

pieces and give me 10,000 distinctive looking pieces out of these using their combination”. It’s a rather smart move to make piles of cash while riding a trend wave. And this other example, one out of many absurd ideas people have been talking about lately, is this scheme of purchasing virtual land. There is a real website that you can visit, known as “Next Earth”. They’ve plotted out the whole earth on their website, and for a right amount, permits you to purchase virtual property, anywhere on the earth. For real, loads of people have flooded the website with the logic that physical property is very costly and the world is transitioning towards virtual, so the virtual land is going to be worth plenty too.

They are not considering this very simple logic that; physical land has some motive.

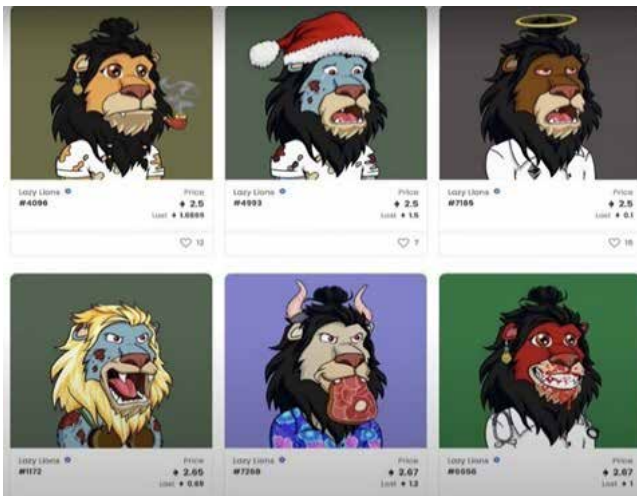


Figure 3. Lazy Lions NFT listings

You may want to live there or perhaps setup a manufacturing unit or a server. But digital land does not serve any such purpose and makes no sense at all. And the creators of Next Earth do not even virtually have the rights of the earth and anyone can make a website like this. In fact, the internet is already full of them. Therefore, in case you bought The Taj Mahal on Next Earth (which is by the way priced at \$20,000), that does not imply you have rights over The Taj Mahal. It does not imply you have any rights over it even virtually. It just says that you own a token which proves that you are the owner, but only on this one out of many limitless varieties of systems. For most people, it’s actually well worth paying more amount than entire years’ worth of saved money, to purchase property in an online game, besides it is now not even a game.

3. Celebrities: Twitter is flooded with celebrities launching NFTs literally all the time. Providing incentives to those who buy costly ones, like getting to meet them in person. That sounds pleasant. However, you can tell that it’s coming from a concept of simply looking to cash in. Almost all of these celebrity NFTs are little more than simply repurposed snap shots from past.
4. Environment: Nearly all NFT transactions are making use of Ethereum. And Ethereum makes use of a safety mechanism called proof-of-work, which is a huge part of making those NFTs’ fraud evidence. The only

problem being is, this type of security needs quite a few computers, 24*7 around them in the arena, so that this network can be powered, and that consumes a large amount of electricity.

5. Artificial Scarcity: NFTs are basically a new way to engineer artificial shortage for an item. To make an item limited which was earlier unlimited [9]. However, in majority of the instances, it’s not actually a good thing. Like UBISOFT (gaming company) who came up with an ultra-modern idea “Ubisoft Quartz” [2]. They are letting out the word to gamers that while playing games, they can now earn a special in-game item, which may also be a tradable NFT. People assume it’s great. They have given them a very tangible aim whilst playing and that’s wonderful. They can now sell that for cash, because it’s a very particular object that they will have to themselves. However, while you think about it, there are feasible effects. Either those items are actually limited and they do grow to be valuable, so much so, that you’re essentially tempting hundreds of thousands of players so that they play for a very long time, just so that they can win that piece and thereby making the games less interactive and less fun for the folks that cannot manage to invest so much time. Second scenario is like if there are so many of these NFT pieces to, so that almost everyone enjoys it and they are all very much alike but with some moderately different alternates available. The second scenario might be the more realistic outcome. However, in that case the whole NFT thing becomes meaningless. The “brag” element of owning the NFT for maybe an in-game item/skin, is always there. And if the NFT is the reason that you are the proprietor of the skin and now it implies that you can carry forward it from current version of game to upcoming one and still own it at the same time, then that maybe an honest value added. But most probably it will not do that. The more they want to pretend to make it seem that way, owning the NFT is nothing like owning an item in real life. If I have a physical clothing item, I will put on it at home or while playing with my friends or on a holiday. But, the complicated nature of different video games, the usage of distinctive applications and physical systems and codes basically implies that you cannot take an item/skin which you earned by putting in hours and hours on one specific game even to the upcoming version of that very same game. The value of the item will be only throughout the game which you’ve got it from, similar to any other game, which is not based on NFT items. The only reason it is an NFT is simply for the organization to produce extra cash via getting a percentage share, every time when the NFT is bought or sold.
6. Illegal Activity: It’s just not about unethical methods anymore. NFTs are also involved properly now, with unlawful activities. For each NFT you see made by a real artist, you could discover 10 from the person who has never picked up a pencil to draw something in their entire life. And might have essentially stolen an already copyrighted artwork and then tokenized it while maybe just pixelating it in the process of trying to promote it as old-school artwork.

INVESTING IN NFTS

For almost all of the NFTs in the market right now, most of the value comes from their primary basis of the technology, instead of what purpose they serve in reality. NFTs are being bought by people due to the fact that they're trending now and because there are very high chances that the destiny of internet i.e., the metaverse we are transferring towards, will use this for you to tell which digital item is owned by whom^[10]. But we know how hard (almost impossible) transferring an in-game item, from a game to the subsequent game can be, similarly, there is very less of a possibility (if any at all) that NFT owned now, will have any use at all in those hypothetical destiny worlds (not implying that they're of any use as of now). Most likely a threshold point might come soon, after which NFTs will no longer be trending. People might lose their interest or there will probably be a next trend they transition on to. All NFTs pictures only attain high value, due to the sheer number of human beings producing them at the moment. Assuming, it is going to happen sooner or later, every bit of the cost which is coming due to the "cool factor", that hypothetical belief that the NFT must be worth only due to the fact it is a trending piece will go away and you are now left alone with your digital token to a JPEG picture. Therefore, right now, it's best that you don't invest in the NFT market. Yes, people do make money from NFTs, however their uncertain tendency makes purchasing them more similar to gambling than investing. So, what most of the experts will recommend is, only purchase any NFT if you want to support an artist financially or if you particularly like an artwork. Buy NFT if you are more than happy to have with you- if the entire market crashes tomorrow, you will be satisfied that you were part of a community and that history as a whole. However, in an era where you can pay a person 1000 rupees (or even less) to layout any artwork that you need after which that art definitely is completely yours in place of handing out \$20 million just so that you can say that you've virtual possession over something, and not even be the real proprietor of a chunk of art which itself is just one among 10000 comparable bits, this NFT hype absolutely feels like a bubble which is about to pop.

If you are still going to buy NFTs, then you can check out a website called "OpenSea.io"^[4]. OpenSea is a NFT market place. It's the most popular and most used website for buying and selling NFTs. So like any other e-commerce website, you just land to the home page on OpenSea, where you see the "Explore" tab. You can go there and explore tonnes of NFTs created by various artists around the world. Or you could just type the name of the collection or the account of your desired choice. That way you can find specifically what you are looking for. Once you've selected your desired piece, you can pay for it using your crypto wallet. That is because the NFTs are bought and sold using cryptocurrency. You can not buy them using physical cash or even digital form of normal currency for that matter. Crypto wallet is a digital wallet for storing your cryptocurrency. The most widely used one is "MetaMask"^[5]. MetaMask gives you a series of 12 words arranged in a specific order. If someone has that, they can have the access to your account. It's called the "secret recovery phase". That, and the normal username

password system. You must have required amount (or more) worth of Ethereum in your MetaMask wallet to pay. With that you will have the token of ownership of that particular NFT.

Creating an NFT is also very easy. You just have to go to create tab under your account and select the file you want to digitalize as an NFT. It could be anything. An audio file, a JPEG image, a video or a GIF. It's literally like uploading a photo on a social media account. Then you have to select a medium to mint the NFT. Mostly it's ethereum but that charges some gas fee. You can use polygon, for no gas fee. And after filling some prompts like the date from which to which, the NFT will be online for sale, you will now have to sign a digital contract to mint the NFT. The digital signature basically means you have to click on sign button. What you have now is a NFT of your own.

SCOPE OF NFTS

Ever since the beginning of 2022, we've seen a lethal drop in Google searches, for the term NFT. So, this might be an insane opportunity to get some popular NFTs for the low, which would be great if the market comes back up, or this drop/dip in search results might be a forever dip. There are a few huge concerns to cover before we can come to the final verdict.

First of all, all the NFTs are useless. Unpopular opinion that some might disagree with and say, that all NFTs have at least one-use case and that is to express yourself by using the piece of art as profile picture. There's nothing revolutionary about that. People have been using cartoons, animal and little avatars as their profile pictures since the beginning of social media. Some people also might say that some NFTs have a lot of use cases, look at Bored Ape Yacht Club. People online are saying that you can breed them, basically use existing pieces to create new ones. But just because I have one useless thing and I can use it to create two new useless things, doesn't give this initial one any utility. But that's actually not the only use case that the Bored Ape Yacht Club boasts about. They have Bored Ape holder only events and now they are also trying to get into Hollywood with a movie and what not. These clubs can actually get you some decent networking opportunities, but you don't even need blockchain and web 3.0 for all of this. All these utilities can be replicated through a simple QR code including a website with monthly payment membership which will take you not more than 30 minutes to set up. Or you can use Patreon and do that in like 15 minutes. The only key difference could be that the membership website would be much more difficult to pitch as an investment marketplace. It's easier to say that this image will get you all of these perks, and you can also sell it in future for a profit. But what makes it even worse is that although the NFTs are based on blockchain, they are not embedded on the blockchain but rather on the link to that image. So, if something happens to that link and it's no longer active, then you lose all the access to that NFT. You can't just edit the blockchain and put the new link in. The point is that all these projects launch as a sort of little character and then grasp to prove that they have some sort of

utility. And absolutely none of the utilities are utilizing the blockchain for anything revolutionary or new. None of these perks require web 3.0 or the blockchain. So whenever having this conversation, this is when the next argument comes in i.e. the Gaming NFTs. People say that gaming NFTs are the future. And on the surface, it looks like it could work, but it's not so clear when you look a little deeper. For starters, one of the biggest, if not the biggest video game distribution services, Steam, has banned games that utilize NFTs and crypto. To top that off, most actual gamers actually don't want anything to do with NFTs. They are already tired of video game companies trying to get as much as they can out of them through different in-game purchases. And also, why does that in-game item have to be an NFT. There's nothing you gain from that, other than having to pay extra gas fee. That's just one side of gaming NFT, which is implementing them into regular games. The other side is games that are specifically developed for and revolve around crypto. People actually don't enjoy playing them. They are just not fun. The only reason people play these games is because there is a chance of making real money from them and that factor also wears off quick when you realize that you cannot make much money from it. To put things in perspective, it's under minimum wage and you barely crack any profit. And if the price of the in-game currency plummets, then you are out of luck. On top of that we see SEC (Security and Exchange Commission) tracking down more and more of these crypto scams. It could be the last nail in the coffin to end this whole thing. The main issue is that a lot of NFTs are starting to share a lot of similarities with securities like stocks, that is something that needs to be heavily regulated.

Something like Crypto Punk is fine. It can be termed as an art or a collectible. But once you start staking and redistributing royalties, you are getting into securities territory. Now combining that with people promoting NFTs by promising future returns, and now you are securities territory completely.

SEC provides a framework for analyzing whether a digital asset is an investment. And it consists of three parts.

1. Money investment
2. Whether it is a common enterprise
3. Reasonable profit expectations

So, if the SEC will start regulating the space, marketplaces

will have to take down a lot of listings, and a lot of legal problems will arise.

CONCLUSION

The most likely outcome of this current trend would be that NFTs will have some more hype waves in future. And surely people will buy a Crypto Punk or a Bored Ape NFT if the price absolutely plummeted, but that's just because they have attained kind of a supreme status among other NFTs due to their current hype and demand. But it is most likely that 99.9% NFT projects right now will see a dip in price and demand and will never come back up. The only new projects in the NFT and crypto space that could have a possible chance of succeeding is if they create something absolutely new with web 3.0 and blockchain technology.

REFERENCES

- [1]. Nadini, M., Alessandretti, L., Di Giacinto, F., Martino, M., Aiello, L. M., & Baronchelli, A. (2021). Mapping the NFT revolution: market trends, trade networks, and visual features. *Scientific reports*, 11(1), 1-11.
- [2]. Ubisoft Quartz, Available at: <https://quartz.ubisoft.com/>
- [3]. Rafli, D. P. A. D. (2022). NFT Become a Copyright Solution. *Journal of Digital Law and Policy*, 1(2), 43-52.
- [4]. Open Sea, Available at: <https://opensea.io/>
- [5]. MetaMask Crypto Wallet, Available at: <https://metamask.io/>
- [6]. Kugler, L. (2021). Non-fungible tokens and the future of art. *Communications of the ACM*, 64(9), 19-20.
- [7]. Wang, Q., Li, R., Wang, Q., & Chen, S. (2021). Non-fungible token (NFT): Overview, evaluation, opportunities and challenges. *arXiv preprint arXiv:2105.07447*.
- [8]. Regner, F., Urbach, N., & Schweizer, A. (2019). NFTs in practice—non-fungible tokens as core component of a blockchain-based event ticketing application. *Fortieth International Conference on Information Systems*, Munich, 1-17.
- [9]. Chohan, U. W. (2021). Non-fungible tokens: Blockchains, scarcity, and value. *Critical Blockchain Research Initiative (CBRI) Working Papers*.
- [10]. Trautman, L. J. (2021). Virtual art and non-fungible tokens. Available at SSRN 3814087.