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The affection of NFT in the Modern aesthetics

Hang Kwan Hon

Thesis / Dissertation supervisor: Tomáš DVOŘÁK

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Vliv NFT produktů na moderní estetiku

Hang Kwan Hon

Vedoucí práce: Tomáš DVOŘÁK

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I declare that I have elaborated the Master's thesis entitled

The affection of NFT in the Modern aesthetics

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Hang Kwan, Hon

Prague, …………………………. 21 April 2023

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[given name(s), surname and signature]

Abstract

After a few years of development of the blockchain and the NFT market, the demand for the market and relative commodities is continuously increasing to a newer height. The future of the NFT market is full of potential and challenges that cannot be predicted, while the norm of the market shows a similar trend nowadays. This phenomenon is playing a critical role in the whole NFT market, the design and the system could arouse a sensational effect on the capital world. The objective of this thesis is to explore the potential value that could possibly affect the art scene in the world. Especially art is, basically, composing everything in human life, and controlling the art scene indicates closer manipulation of our daily life. To be practical about reality, the affection of the NFT market is developing at a speed that is beyond our expectations. With the momentum of human recourse and the internet, promoting a particular subject is way easier than in the last century. And in fact, NFT product is slowly infiltrating our daily life, from the photos that could be sold on the NFT platform to the recent Qatar World Cup in 2022. The shadow of NFT covers every corner, surrounded by human beings. In order to understand the manipulation of NFT we must first establish a realization of our mindset, to understand the relational content between cryptocurrency and NFT products in the Market. Regarding this circumstance, I would like to start with the politics of aesthetics with the design of the NFT product, how it could be designed to fit in the needs of the purpose to control or manipulate the trend, or what I call the momentum in this scenario. Once the momentum is created, what are the further steps to take and expand the momentum to let more resources participate and ultimately reach it final stage of manipulating the aesthetic of art? There are multiple options to discuss the NFT market, I will begin with the actual example as I have mentioned above, like how many examples are happening in the market, and then analyse the similarity of the NFT art and provide a whole picture regarding the collected data from the actual example. Besides, the aspects of affection and memory are also interesting to point out that need to be discussed with the issues about the market. During the analysis process from actual data to theoretical discussion, it can provide a clearer perspective to the public on how to understand the running system of NFT affection, Hence, achieving the realization of the system. However, it is difficult to conclude whether this phenomenon is creating either positive or negative effects in this stage. The power of this newly developed platform should be placed under the spotlight but not ignored. Nonetheless, this article is aimed to show the phenomenon of the system, and further research on the

relationship between the aesthetic of the NFT market and humans is required in the future.

Abstract

Po několika letech vývoje blockchainu a trhu s NFT je poptávka na trhu a související komodity stále rostoucí a dosahují nových výšek. Budoucnost trhu s NFT je plná potenciálu a výzev, které nelze předpovědět, ale současný trend ukazuje na podobné chování trhu. Tento fenomén hraje klíčovou roli v celém trhu s NFT, protože design a systém mohou vyvolat senzaci v kapitálovém světě. Cílem této práce je zkoumat potenciální hodnotu, která by mohla ovlivnit uměleckou scénu ve světě. Zejména umění zahrnuje všechno v lidském životě a ovládání umělecké scény naznačuje blízkou manipulaci našeho každodenního života. Abychom byli praktičtí v realitě, vliv trhu s NFT se vyvíjí rychlostí, která překračuje naše očekávání. S podporou lidských zdrojů a internetu je propagace určitého tématu mnohem snazší než v minulém století. A vlastně se produkt NFT pomalu infiltroval do našeho každodenního života, od fotografií, které lze prodávat na platformě NFT, po nedávné katarské mistrovství světa ve fotbale v roce 2022. Stín NFT pokrývá každý kout, obklopen lidskými bytostmi. Abychom porozuměli manipulaci NFT, musíme nejprve uvědomit naši mysl, abychom pochopili vztahový obsah mezi kryptoměnami a NFT produkty na trhu. V této souvislosti bych chtěl začít politikou estetiky s designem NFT produktu, jak ho lze navrhnout tak, aby vyhovoval potřebám účelu ovládání nebo manipulace trendu, nebo co nazývám momentum v této situaci. Jakmile je vytvořen momentum, jaké jsou další kroky a jak lze momentum rozšířit, aby se více zdrojů mohlo zapojit a nakonec dosáhlo svého konečného cíle manipulace estetiky umění? Existuje několik možností, jak diskutovat o trhu s NFT, začnu s aktuálním příkladem, jak jsem již zmínil výše, jak mnoho příkladů se děje na trhu, a poté analyzuji podobnost NFT umění a poskytnu celkový obraz týkajíc

Content

1. Trending of NFT

After the boom of Non-Fungible-Token (NFT) trading in 2021, it immediately caught the attention of the whole art world, investors, collectors, and gallerists on this newly established form of art implementation (Wang, 2021). It entirely shaped the form of how it can be transferred, traded, stored, and exhibited (Luke, 2021). The usage of platforms on art trading has a huge impact and provided an alternative method for creators and consumers. Enormous growth was recorded between July 2020 to March 2021, with nearly 10 million US dollars which is 150 times bigger than 8 months ago (Nadini, 2021). And art has more than 70% of the total trade volume, while 12 % is collectible (Nadini, 2021). One more piece of data supported one of the reasons why the NFT is having its astounding performance in 2021, according to a scientific report titled "Quantify NFT-driven networks in crypto art", the report indicated a significant amount of earnings from innovators, and early majority and Majority (Vansan, 2022) (Wang, 2021). That caused a huge amount of investment in NFT after its outstanding data in 2021 (Vansan, 2022).

The success of "bunch of jpegs" with apes in a different setting called "Bored Ape Yacht Club" triggered the attention of the general public regarding the rising of the NFT market. Each of the bored ape jpegs has its own unique decoration, from a captain smoking a cigarette to a leopard-pattern liked and wearing heart shape sunglasses ape. The "Bored Ape Yacht Club" was officially launched on 30 April 2021 (Chayka, 2021), the club provided nearly 10,000 apes as NFT on the NFT market. A single bored ape is traded for around 70 Ethereum, approximately 115,000 US dollars at the time on 1st March. The total volume from the biggest NFT trading platform OpenSea is marked as 908,030 Ethereum. The other collectibles from the same studio Yugalabs have also released a collection of "Bored Ape Kennel", which has around 9600 kennels listed on the NFT market Opensea (Opensea). The owner of the bored ape can gain access to the "avatar" which is a unique place exclusively for the member of the club. The millions of trading volume have no doubt caught plenty of attention from the public, artists, collectors, and investors. The boom of bored apes created not only an enormous trading volume but also a unique culture on the internet accompanied by its success. The owner can show their "loyalty" by changing its profile picture to its bored ape, which will then cause hundreds of followers on Twitter. This strong bonding from the Ape owner brought a great impact on the market and it signals the other parties to launch their NFT, causing huge growth in the market. There is even one statement from Aleksandra

Artamonovskaja, a London-based founder of the curatorial consultancy Electric Artefact saying that he can pay his rent by trading pictures online.

The popularity of cryptocurrency has, to a certain extent, driven the NFT market to its highest peak, and that provides a good soil of land for NFT lovers and collectors to explore the potential and possibility of how far the NFT can be utilized in real life. CHFTY Pizza launched its 2,777 NFTs with unique designs at 0.07 Ethereum in March 2021, two famous chefs Tom Colicchio and Spike Mendelsohn announced the collection of NTFs on Twitter (Primus, 2022). The owner of the NFT can gain access to cooking lessons, recipes, and pizza parties with the NFTs founders, and also another celebrity chef (Primus, 2022). Another famous restaurant connected with the NFT theme is located in California, USA, the "Bored and Hungry" Fast food restaurant. "The World's First Bored Ape inspired restaurant", as they have titled themselves on their official Instagram account. The restaurant was first launched in 2022 by entrepreneurs Andy Nguyen, Kevin Seo, and Philip Nuynh who are also the founders of the Food Fighters Universe (A series of NFTs first launched in June 2022 according to OpenSea). This NFT theme restaurant features a series of Fast food including different flavours of Burgers and french fries. And according to their Instagram page, the whole set of restaurants is based on and inspired by "Bord Ape" NFT. From the design of the package for burgers to the floor of the restaurant. In addition, using Bored Ape as inspiration is not only limited to graphic design. There is a virtual band that implemented 4 bored apes as the band member which is called "Kingship". The "Kingship" was based on the build of Bored Ape and minted another NFT called "Kingship card", which provided access to music, and exclusive content of the bands (Opensea). They have written their statement on their webpage regarding their journey of building up the Kingship band, and parts of it are stated below.

"Life on the Ethereum blockchain isn't easy. You can't just change your traits. You're stuck with them for life. All that you can change is the way other apes think about them. Bonded by the belief that great music brings every species together and transcends traits and rarity, they formed a band soon after." - Kingship

Blending blockchain technology and musical asset is a relatively new concept nowadays. With the base of Bored Ape, the affection from its side product could have a huge space of

potential in different art domains. There are already some reported platforms that are trying to explore different possibilities in the utilities of blockchain technology to expand the traditional way of music sharing, ownership, and musician independency. This alternative NFT art-related category that I would like to mention, is how the music industry slowly adapting the usage of blockchain technology to generate a new wave. "NFT Music will soon put Spotify and Apple Music out of Business", is the title of a short article on Analytics Insight. An online publication focuses on Artificial intelligence, Big Data and Analytics (CEX.io). There are serval music platforms that are trying to establish a new form of relationship not only between music artist and fan, but also the artist to the distributor, for instance, Spotify and Apple Music. Such as Unchained Music, Another block, Audius, Sound.xyz, and Royal (Unchained music).

On the other hand, the gaming platform is also an interesting case to go for deeper research such as the "Axie Infinity" and "CryptoKitties". This type of pet-raising game emphasizes the NFT that, the pet itself, can be adjusted and improved the value by spending more time on the game, and feeding the pets to get better properties and appearance in the game. The value of the pet will then increase in order to sell at a competitive price through cryptocurrency. Nonetheless, these games have similar concepts as the NFT market such as OpenSea and SuperRare. But the most important concept is the game is connected with a certain value in reality that could be exchanged for currency, hundreds of pets and kitties can be traded and trained online even if the player is off from the game, the pet is having the same logic as the NFT in another market. It can be accessed to its data, for instance, when it was minted, what is the character of the pet, what was the latest trading record, and who is the owner. Unlike the online gaming platform which is traditionally limited to the virtual world, the NFT gaming platform is now combined with trading, entertainment, community building, and even investment in one package. NFT gaming has a relatively low share in the market at around 10%, while the arts have the leading position with almost 55% in the market share (Nadini, 2021). Nevertheless, the potential of NFT games could be expanded to combine with various areas.

In addition to gaming, metaverse also holds a stake in the NFT market. Since Metaverse is a third-party social platform, which is targeted to enhance social communication through different gadget devices such as smartphones, virtual reality machines, and personal computers. As Meta, the head company of Facebook Inc. emphasised the metaverse is the

future of communication. On the official website of Meta, besides the slogan about the advantages of the metaverse, they also showcased a few video clips indicating the demonstration of how the metaverse can connect people, what it requires is VR goggles. From teaming up in football games or flying a spaceship with your friends in another universe to watching a movie in digital cinema, or cycling on the highway next to a huge plane field. Meta is trying to bring a closer distance between humans and extend the possibilities of how we can socialize with others. Since the metaverse heavily relies on the digital world, cryptocurrency and blockchain technology will then be explored as one of crucial parts. For instance, in-game items, membership, and digital assets. Especially the usage of metaverse as E-learning in the future, in which metaverse can breach the limits of traditional 2D learning as Stylianos Mystakidis published his research regarding metaverse in February 2022 (Mystakidis, 2022). However, Stephane Kasriel, the head of commerce and financial service of Meta had announced that Meta will shut down the support for NFTs such as collectibles and move their focus point to help creators in a better position (Thompson, 2023).

Meta Quest

Share new experiences and do more together in the metaverse

Shop now

Figure 1: VR goggles introduced by Meta

The trend of NFTs in the past few years has undoubtedly inspired thousands of people in terms of how we can understand our life, the affection is slowly infiltrating every corner of society. Especially when it is used in our daily life aspect. NFT provided an alternative community building which is totally different from the traditional gallery, in terms of geographical, relational, and hierarchical. If participants wish to join the NFT community, the only criteria is they need to purchase the specific NFT on various markets. Since it is based

on blockchain with smart contracts, that can secure the authenticity of the ownership. If NFT is, overwhelmingly, improving and altering our way of perceiving daily life. Then it comes to the question of whether it can be a game-changer in the art industry. Regardless of the technical issues, such as VR goggles and hardware support. If we need to have an online geography lesson, is implementing blockchain technology provide more security than an encrypted internet connection? Is it more effective than a traditional field trip to a rural area to deliver the geography lesson? On the other hand, are we creating NFT to bring technological advancement so that humans can benefit from it, or we are making NFT to suit a particular group of people so they could influence the trend of society? It is too early to put a conclusion at this stage, since the development of NFT is still in a progress, which means it has not reached a certain point where we could experience it on a daily basis. But it is certain that the affection from NFT is approaching, regardless of the effective area. It is important now that we should realize the possibility of NFT in our daily life, how it can shape our way of thinking and aesthetics, and understand how it can be developed in the future. If NFT is powerful enough to reshape our way of living, then it must be capable to shape the art world without any hindrance. From our daily clothing, architecture, and food, to how we should understand visual art, and how to determine and be critical of what is art. From my point of view, NFT plays an important role for the future generation and should not be ignored regarding its affection and existence. Should we raise the alarm or ease our alert on NFT? How can we maintain the balance of the usage of NFT but not lean too much toward the other side of the scale? It is the main goal that I would like to focus on and explore in this thesis.

2. Gamechanger

NFT is undoubtedly bringing a huge impact to the whole world, but does it mean the thriving volume in the NFT market caused a fundamental change in our daily life? What is the meaning if one wants to achieve a tremendous transformation in all aspects? There are two layers, to begin with in order to achieve the pre-requisite condition of the gamechanger. In the first place, to influence the infrastructure of the general layer, from the basic form of presentation to its functionality. In this case, for instance, before the born of the computer, if we would like to listen to music on the street or at home. We must first acquire a music player regardless of the type of it. A speaker, a portable music player, a cassette reader, or a vinyl disc player. Until the arrival of the digital age, such as an electric cell phone, a digital player with a CD rom provided, or even nowadays where we can enjoy listening to music by paying an internet fee to access streaming platforms so we could benefit from it. What I would like to point out is the transition from the analogue period to the digital period is one of the milestones under the circumstance of having new forms of music listening experience. During the analogue period, we need to carry a music disk, cassette, or vinyl disk in order to achieve the purpose of listening to music. While the digital period has brought physical disks to an end so we are no longer required to bring any extra disks if we would like to change to a different style of music. The development of music entertainment even evolved to only one smartphone with internet will be adequate. The transformation of our way of accessing music entertainment has been changed due to the technology advancement, and it brings not only a physical advantage but also behavioural habits to a new form of music leisure. The technological transformation is not limited to only the consumer, but also to music creators and distributors in the industry. Before the portable music player, everyone enjoys music at a particular space or event, such as a concert, home, or bar. And with the birth of portable music players, coming with smartphones and streaming platforms, the way of experiencing music has been changed fundamentally. That directly affected the sound design of the music, and the cost of spending is now shifted from analogue music playing to a digital streaming experience. Creators must apply new forms or even new means to compose their music according to the media. Distributor must review their marketing strategy in order to maximize their profit. In other words, technological advancement brought an influential effect on the whole society, which caused a chain of alternation for the whole industry.

Furthermore, the stakeholder of the whole industry should also be put into consideration while we are concerned about whether the influence of the changes has been provided. For example, as I have mentioned above, the digitization of music leisure has obviously achieved a significant influence regardless of music lovers, consumer, music creator, distributor, or any other related aspect in the music industry. From the little pieces of earbuds or wired headphones to the copyright issues. Or from a classical music concert to a reggaeton rave. It involves a broad spectrum while dealing with the changes. Hardware technical issues or consumer habits are also part of the music industry. Thus, in my opinion, the changes must have reached a certain extent that they could affect the general industry so the definition of gamechanger will be valid.

Now it comes to a point, in which NFT is a game-changer for the whole society. Can it bring fundamental reform to the industry? Can it cause as sensational as the transformation from analogue music to digital music streaming? Since I have started the topic in music leisure, then I will continue to develop my opinion on music NFT, following with the NFT illustration or the so-called "collectibles". As I have stated in the previous chapter, number of different music platforms are now establishing a new relationship between consumers and creators. One of the examples that have applied blockchain technology is "Unchained Music". What they have provided on their website indicates that applying blockchain to the music industry could help an artist to gain their freedom back (unchained music). Which they have stated the whole project on their website and the overview part is as follows (unchained music).

"Musicians have long struggled to receive higher payment for the music they produce. As Maria Bosseljon states in her 2020 article on "Innovating in the Music Industry," revenue streams must be funneled through a long chain of the streaming service, the record label, the publisher, and performing rights organizations before they can make their way to producers, songwriters, and the performers themselves (Bosseljon 2020, pg5). If that wasn't enough, for musicians looking to stream their music, they received merely $0.0032 per stream on Spotify, $0.0056 on Apple Music, and $0.00436 on Deezer (Pastukhov, 2019). The amount of income that can be generated through these platforms makes it incredibly difficult for independent artists to support themselves." – Unchained Music

In general, Unchained Music pointed out the difficulties of a musician in the music industry,

in which musicians are not treated fairly in terms of income from their creativity. Unchained Music has also provided various analyses and solutions based on the issues in the industry. For instance, music distribution, analytics, label services, and peer-to-peer marketplace. In short, Unchained Music stated that once a music creator created an account and uploaded their music to the platform, Unchained Music will then submit their music to various music-related platforms, such as Spotify, Apple Music, YouTube, and so on. After that, all royalties and payments will then be collected on behalf of the artist and stored in a stablecoin liquidity pool or US government short-term bonds after being converted to USDC. Moreover, disputes between two parties can also be solved by deploying smart contracts. All the exchange or negotiation are handled by the escrow system established by "LocalCryptos", which means all the transaction is placed in a secure environment. Any dispute can be handled efficiently based on the information in the chat or evidence by both parties (unchained music, 2022).

In addition to Unchained Music, there are other platforms called "Anotherblock.io" and "Royal" that are establishing a new relationship between music lovers, investors and music creators. Both platforms emphasize royalties of the music can be traded as products via blockchain. The idea of these platforms is it allows music creators to sell parts of their ownership to the public, which is called "share" as if the normal financial products in the stock market. What follows is the audience can purchase the "share" as an NFT to own a small part of the right of music and exclusive right to special usage (anotherblock).

"anotherblock makes it possible for everyone to invest in music. we work together with rightsholders (producers, writers, artists, etc.) who divest a percentage of their master streaming rights to us, which we fractionalize and distribute via the blockchain. the fractionalized streaming rights are released as NFTs and all holders will receive regular payments, every 6 months, based on the streaming revenue. previously, catalogs were only accessible to whales, we're bringing catalog collecting to the people!" - anotherblock

The discussion so far has briefly introduced the utilities of NFT in the music aspect. Despite the fact that Unchained Music is de facto establishing an innovative environment for music lovers and creators. The concept of Unchained Music can establish a more effective and beneficial platform as an alternative to music creators, in which they could benefit more from their own creativity. Besides, the music lover can, therefore, gain access to utilizing the music in different situations based on their ownership of the NFT. However, obviously, it

does not bring a huge influence on the music industry, only limited aspects are affected in this circumstance, such as ownership, and transaction. Even the transaction platform which is mentioned by Unchained Music is winding down, which indicates a signal of the decay of cryptocurrency. Besides, there is a relatively strong tendency that the usage of NFT is being used as an investment tool. This highly merchandized focus can bring only limited changes and embodiment to the public that NFT is mostly related to investment. Concerning its influence in the general aspect, NFT does not fit into the definition as a game-changer under this circumstance, but, seemingly, merely a spark that generates from a strike of a match.

In addition to the music NFT, visual art is also another area that I would like to focus on in this chapter. Visual arts have great influence in terms of our daily life, from the design to the package of the shopping bag, the painting framed inside a canvas. Not to mention the reliance on digital-based NFT work nowadays. Then are there any possibilities that NFT could bring a huge influence on visual art? Is NFT a game-changer? These questions will inevitably come in a direction, in which we will need to take the usage of NFT in the actual scenarios. OpenSea, as one of the biggest NFT markets in the world, they are undoubtedly having a leading position in terms of analyzing the situation on how NFT is affecting the visual art world. As I have stated in the previous chapter, there are several styles of collectibles and illustrations that are dominating the whole market. For instance, the Bored Ape Yacht. What you can discover on OpenSea is usually a series of collectibles having the same set of bases with different decorations. And the function of using blockchain technology for the artwork is mostly used as a unique code and record to represent the specific item, which is called "non-fungible". With the record of the exchange history, NFT then can provide the authenticity of the artwork in which the public can access the record in the past, such as who, when, and how. In short, what OpenSea emphasized is the authenticity, ownership, and uniqueness of the NFT item are essential for various platforms, such as gaming, visual art, collectibles, virtual world, and so on.

"For example, a developer could make an in-game skin that can be used across a variety of games and has established authenticity and ownership…" - OpenSea

"…Imagine you're about to buy a concert ticket online— with NFTs, you can trust its authenticity, because of the undisputed blockchain history, instead of relying on the reseller's word." - OpenSea

There is one thing that we should not ignore when discussing whether NFT is a game-changer in the visual arts aspect. Because, fundamentally, the advent of NFT is the cause for the thriving NFT art market, such as OpenSea and SuperRare. But not because of the NFT art market that drives the significant influence of the visual arts. Here comes the discussion of the definition of what is a game changer in this situation. One must not forget that technological advancement is principally the same, but in terms of the broader influence that provide to the whole society is different by comparing to the affected stakeholder. NFT and its derivatives do provide, to a certain extent, some changes in the visual art scenario. For instance, to provide an unconventional platform which allows an artist to showcase their work to the public audience. And the usage of blockchain secured the authenticity of the artwork, plus the safety issue while having transactions during the exchange procedure. However, ultimately, technological advancement is not as sensational as the digitization of visual arts or music, as I have discussed above. NFT, in practical speaking or theoretically, is limited by the concept itself which is not designed as groundbreaking as digitization. What blockchain could achieve at this stage and age is limited to the market demands as a tool for security, authenticity, investment, and general management. It is still far away from being considered a gamechanger in nowadays definition. NFTs have been used since the bloom in the last few years, It is seemingly a means to evolve the market trading in general. Whoever wants to get involved with NFT must inevitably take part in various trading platforms. Thus, if NFT is not as essential as what we expect in the first place, then what is the meaning of discussing NFT while it is decaying with the cooling-off period of cryptocurrency? What is the affection that brought the attention of the general public?

3. NFT in Art Market

NFT has been heavily deployed in the area of art trading in this day and age, it is essential to consider the previous period before the birth of NFT, the artist's self-promotion, social life within the art sphere, artistic approach and decision, and technological advancement. This short chapter will cover a brief comparison between the traditional art market to nowadays the NFT market. The other affection from the NFT will be covered in the next chapter with further discussion. Since the 17th Century, if an artist would like to sell their work and broaden their exposure in society, they must bargain with auctions and gallerists to start their career. This practice has been continuing for more than a few hundred years and is still one of the main streams for an artist to be considered active in the art world. What follows with this phenomenon is the entry requirement for start-up individual artist is too difficult in the sense that they must first establish their reputation and build up their own portfolio. With the uprising concept of a gallerist in the 19th Century, this disputed concept seems to have its true development in the 20th Century. Aiming to invest those beginner artists who are eager to sell their work in the art market, is usually to have a fifty-fifty split after arbitrage (De Marchi, 2006). Thus, the amount of earnings from the auction for an artist is relatively less after sharing the income from the sale of the work. Besides, the transportation cost and security issues of those artworks are also part of the concern for an artist; Transparency of the auction is also one of the considerations since the general public is impossible to access the information in a big auction such as Sotheby's and Christie's (De Marchi, 2006). Before the advent of NFT, artist who would like to reach to different audiences in the art market is difficult to achieve, not to mention the public audience. A chain of reasons could bring impediments to not only beginner artists but also experienced artists in the art segment.

The NFT market seems to be a beacon for all kinds of artists to develop their careers. NFT market, for instance, OpenSea provides a simpler procedure for artists to be registered and showcase their work in an open market which can easily reach the whole world with different kinds of art lovers, collectors, and even conventional gallerists and auctions. With the help of blockchain technology, artist and buyers can confirm the security and authenticity of the art piece. Information about the art pieces is also transparent since the blockchain contains the data of the creation date, author, and transaction history; the cost of transportation is also erased since all of the artwork is digitized. Lower cost, user-friendly interface, and security provided a better platform for artists to contact different curators, gallerists, collectors, and

art lovers. However, it is found that the OpenSea platform has a selective system on the NFT market, with promoting popularity and ranking system on their website. Visitors can easily spot the trend of the market but it is heavily based on the trading volume. Which is not beneficial to beginner artists if they would like to sell their art pieces in a competitive and selective environment (Ng, 2022). After a discussion of the practical and technical issues with NFT and the market, it is certain that the trend of NFT has different pros and cons for artists and consumers. But it is not influential enough to be considered a gamechanger to society. However, at the same time, NFT does provide an innovative platform for artists for exposure; curators for a broader range of art pieces; art lovers to engage with the trend of modern art.

4. The affection of NFT Art

It is perhaps not the most appropriate way to address all kinds of art except NFT art as traditional art. What I would like to distinguish is a general form for presenting the artwork before the birth of NFT, regardless of the form, aesthetic, and politics. It is apparent that most of the NFT artworks are digital items, what I have explained is NFT bring no sensational changes compared to digitization. And NFT itself is constructed on the base of digitization; the demanding energy consumption proofed most of the NFT work is heavily relied on electricity. The major system that constructs most of the NFT, is built on the Ethereum blockchain (Valeonti et al., 2021).

On the other hand, in my opinion, a concentrated trading market is also a key that will bring an important affection to the artistic approach. As I have discussed the trend of NFT nowadays, the majority of the trading is being settled by the NFT market. A concentrated market means a concentrated exposure of a particular point of aspect. It is similar to the cookies on a web browser, in which the browser will access your search record and based on the result provide relative results for the user. In other words, providing a more personal and customized browsing experience (Martin, 2018). And NFT market plays a similar role as the "customized experience", but the "browser" is those markets such as OpenSea, SupurRare, and Unchain Music instead. The content of the NFT market is already set in a way that will bring advantage to the "algorithm", which the "algorithm" is organized by a ranking or popularity system based on the trading volume, exposure, and so on. The public will have access to a pre-arranged world where the trending items will always be placed as the priority. Thus, the first impression of the NFT market will always be a similar style of an art piece, such as the Bored Ape Yacht which I have mentioned in the early chapter. Every module is established in the same module and decorated with various elements for the rest of it. This type of NFT artwork is commonly deployed in the general NFT market. Following with bloom of the NFT fever in 2021, this style of art making has been influencing thousands of visual artists on how to create an art piece that could be outstanding among other competitors. From this day and age, NFT artwork is tentatively maintained in a similar style for every artist that would like to get involved with the business. NFT artworks are content that has been created and categorized as "Fine Arts" in the market. As I have mentioned before, the most popular items in the NFT market are mostly based on the same model with different variations. This also means that the "collectible" is the most profit-making item.

This phenomenon aroused me to think of the aesthetic of the artwork in nowadays NFT market. In my opinion, the repeated model is less complicated than creating new art piece, but that also means that the trend in the NFT market is filled with lots of "copies" with only minor alternations. It is obvious that the trend in the NFT market is full of this type of artwork, because it also represents the demands of the public to be driven into this type of profitable items but not an art-promote platform for all the artist to showcase their works. The profit or fame-based concept is very likely, to dominate the art-making direction while everything is presented in a concentrated market.
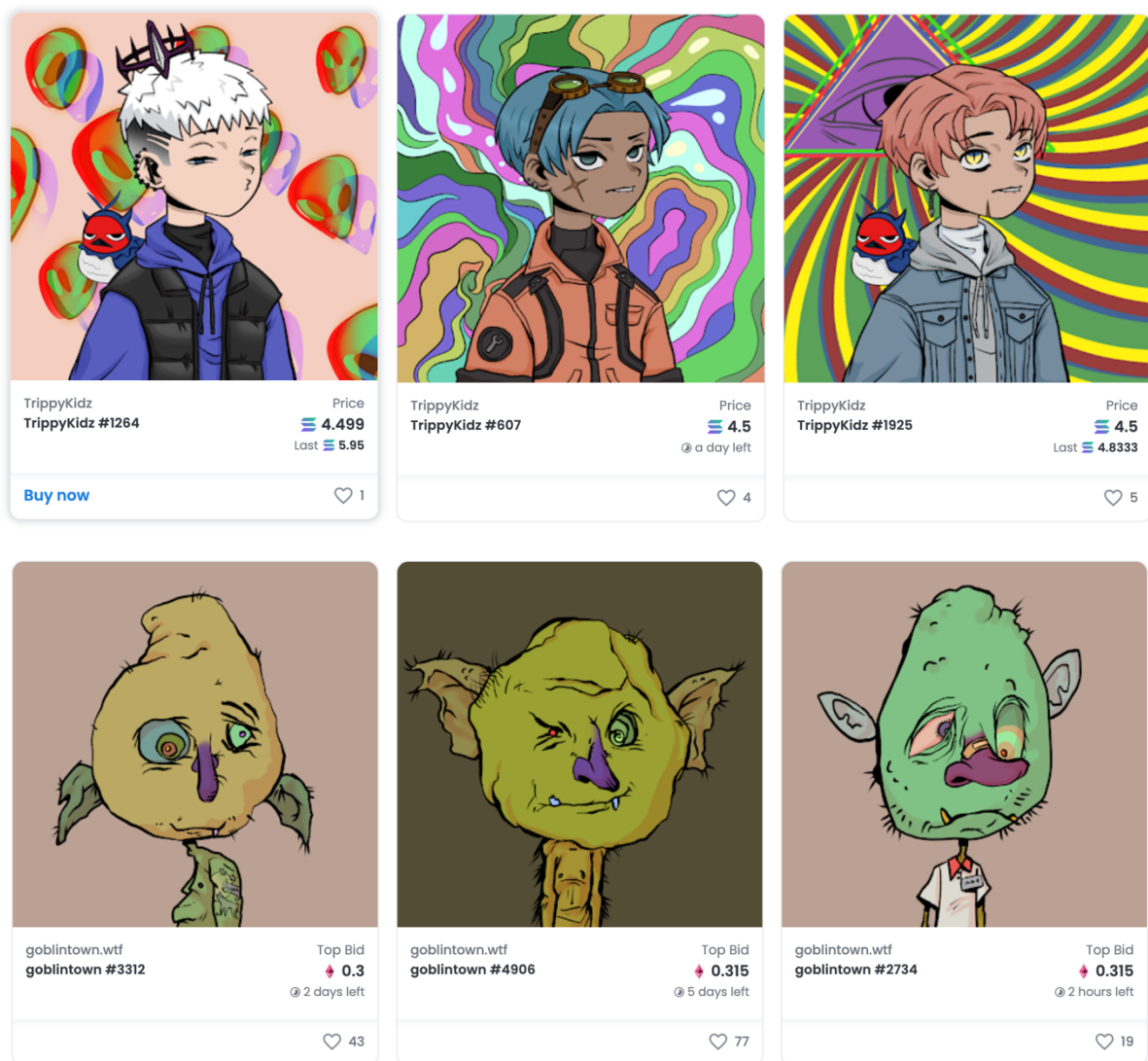

Figure 2: NFT art on OpenSea Website

The above examples are the trending page of the "OpenSea" website, which are collectible from "Trippykidz" and "goblintown.wtf" respectively (OpenSea). Apparently, the trending

collectible items are basically built with a similar package and only with different details. The setting is usually started with a model of a person or creature, and then the style will change accordingly based on the combination of faces, hair, clothing, tone colour and so on. Furthermore, the pet-raising game "Axie Infinity" also applied similar aesthetics and strategy while the only difference is the player will gain confidence by feeding up the creature and interacting with another player.
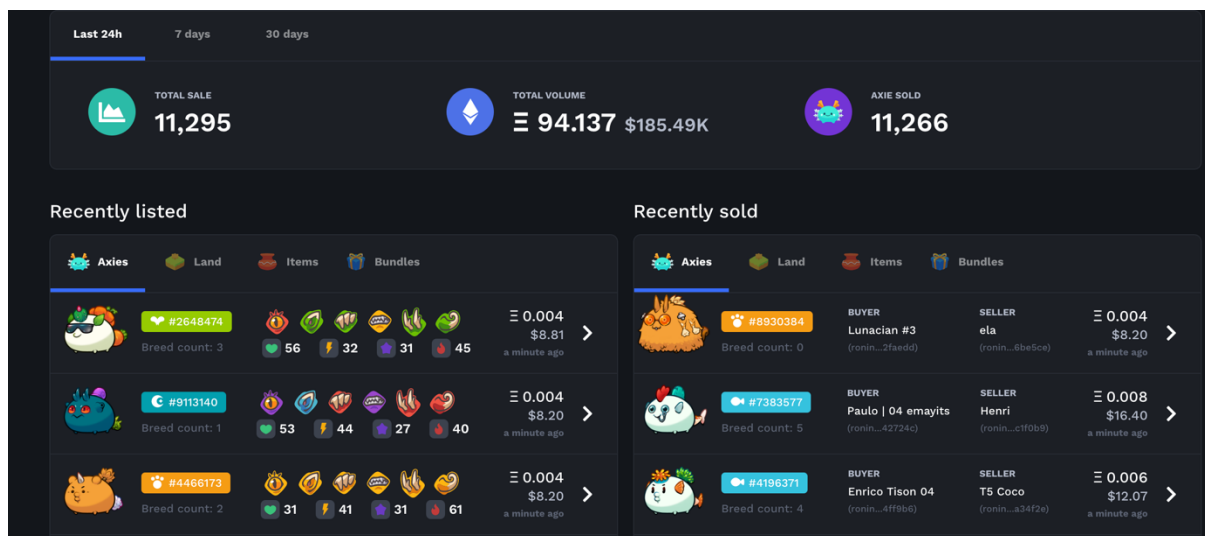

Figure 3: NFT pets listed with prices for sale on Axie Infinity

A visual artist will then depend on the trend which dominated the market and create a certain art piece that suits the public taste and make a profit during the creation progress. And what I have experienced so far, none of the NFT trading platforms will provide assistance for new artists to develop their artwork. For instance, competition for new artists, collaboration and so on. Every item on the NFT market is, therefore, profit based on the first priority, just as how "OpenSea" described on their website.

 "*We're building tools that allow consumers to trade their items freely, creators to launch new digital works, and developers to build rich, integrated marketplaces for their digital items.*" - *OpenSea*

Nevertheless, the "OpenSea" platform suited the need of those who have a great influence on the market, and ultimately, they will be the group of people who have the advantage to dominate the trend of the NFT market. Which it conforms John Berger indicated that artwork

tends to serve the ideological interest of the ruling class, the form of controlling society has not changed much with the power of capital, and everything is a commodity (Berger, 2008). The last few centuries are about the canvas on the wall, nowadays is the collectible on the NFT market. In terms of the controlling power of the regime, with a platform like "OpenSea", the setting of "ranking" or "Top collections" in their system is literary creating a specific beauty that provides a characteristic of the arts to fit into the aesthetic of the regime (Ranciere, 2013). Therefore, the aesthetic regime as Rancière described, will therefore be defined as what are the appropriated or unappropriated artworks in the NFT market.

The discussion so far has pointed out the possible issues of the NFT Market, which could create a norm for participants to follow and therefore fulfil the aesthetic needs of the market. In other words, the aesthetics of the NFT market is critical for the discussion, and I will continue with a further explanation regarding this topic. Related discussion and research are still not in the spotlight, but with the extraordinary growth of the NFT market in 2021 (Nadini, 2021), the reason behind it and related critics are important in this stage. The question of aesthetics is a key to analysing the artworks of the NFT market, as if how Rancière indicated in his book "The Politics of Aesthetics". Politics is about who is able to speak and who is able to hear it, which all depends on the space and time of the person. He also believed that there is a general distribution of ways of doing and making, and artistic practice is the way that can invert the distribution of the visuality of the forms (Ranciere, 2013). In my opinion, the relationship between aesthetics and politics is similar to a sudden shock in any form of sense. Imagine there is a person who is going to a horror movie in a cinema, and he has shocked by the object in front of the screen which he had never seen before. The moment of getting shocked is similar to being pulled up in the air, and then you can either criticize or appreciate it in the sense that you are affected by the aesthetic of the artistic distribution. The artistic distribution is no doubt that could provide a "shock" which will arouse the spectator to consider the beauty of the subject but not the aesthetic behind it. Thus, in my opinion, there are actually two levels of structure in order to pull one up and influence the aesthetic. First of all, the build-up of the infrastructure is the NFT market. It highly relies on the blockchain protocol with a cryptocurrency exchange. Second, the "shocking" moment or the superstructure to complete the model of artistic distribution, the artistic trend created by the so-called artist on the market. Once these two levels are prepared, the "shocking" scenario will then be effortlessly implemented into the artistic distribution. It is obvious that the NFT market purely relies on the trends, and those trends are the

mainstream of the NFT market which is profit-oriented. On the other hand, the gaming platform is also an interesting case to go for deeper research such as the "Axie Infinity" and "CryptoKitties" which I have mentioned above. Combining the ideas of the blockchain elements, gaming could amplify, to a relatively good extent, more effectively to implement the idea of artistic distribution. Since the concept of gaming requires lower technical skills from the player than in the NFT market, such as creativity, design, and visual knowledge. Players can easily create their own "NFT pet" in the gaming world because the model and material of the "NFT pet" are provided by the gaming company. What is required is the aesthetic sense and preference of the player which will decide the outlook of the pet, for instance, their appearance, character, and attributes. Nonetheless, the most important part of this customisable feature of the game is the "NFT pet" created by the player which is based on the materials from the gaming designer of the company. No matter how many new packages or designs are released by the gaming company, the "aesthetic" of the player is therefore limited by the game. Thus, the aesthetic of the game design and "NFT pet" elements are created to serve the need of the major artistic distribution, which only follow the logic to fit in the functionality of the art form. This strategy is even more effective than the NFT market, because not only they are carrying a similar blockchain system, but also implement one more element to the participant which they can be the "creator" as well. Such implementation in either the NFT market or NFT games is highly controllable by those who have an influence on the related industry, and their capital can easily maintain aesthetic distribution throughout the platform.

While in the traditional art-making process, freedom is relatively more obvious than in NFT art-making. Since artists are not highly influenced by one or few of the particular markets to establish their strategy for aesthetic approach. Nevertheless, I am not trying to argue that NFT artwork making is meaningless and highly controlled by a group of minorities, but rather, to point out that the essence of affecting artistic decisions is different between traditional art and NFT art. From what Anne Bogart has indicated her ideas of the intention of art making, it is important that the artist has a clear mindset, by knowing what the intention is behind (Bogart, 2007). But here comes an argument, what are the criteria for art-making decisions? What triggered the difference between NFT art and traditional art? It is valid that artists take both profit and initial feeling into consideration when making art, the former has a vivid characteristic and strong momentum to drive artists into the profit-making side.

It will be reckless to reach the conclusion that NFT art only brings a negative impact at this stage since we have the option to choose which "browser" is our search engine and the "algorithm" is customized by our decision-making. The way of accessing the browser is also slowly infiltrated the traditional world. There have been a few reported news regarding the utilities of NFT technology in physical artwork. The Uffizi Gallery in Florence is turning Renaissance artwork into NFT related token in order to raise funding for the museum, a Michelangelo painting of the holy family, Doni Tondo (1505–06), has been sold for $170,000 USD, and the buyer was reported to be women who would like to purchase the artwork as a 60 years old birthday gift to her husband (Artnet News, 2021). The State Hermitage Museum in St Petersburg, Russia joined the non-fungible token in 2021. They have tokenized various digital-copied works by Leonardo da Vinci, Vincent van Gogh, and Claude Monet, to run an auction on the Binance NFT market (Kishkovsky, 2021). Mikhail Piotrovsky, the general director of the Hermitage has described the intention of why the Museum is tokenizing the artwork in the recent day.

*"We try everything," he said. "Since NFTs exist, we need to try them. We're not looking at it as a way of making money. It's not clear how one can earn from this. Maybe it's not possible. But it's interesting for us because **it's a new form of people's relationship with art**." – Mikhail Piotrovsky*

What Piotrosky had described as the relationship between art and people caught my attention in nowadays debate on NFT. When a physical art piece is digitized and tokenized with blockchain technology, the physical art piece is still being placed in the museum, then what makes the difference between NFT art and physical art? Nevertheless, with blockchain technology applied, the ownership can be secured in a solid status. But what if the buyer owns is only limited to a digital copy, it is seemingly losing the actual experience in the reality then having the physical art piece in front of you. It seems that the perspective of art appreciation is somehow being excluded from the discussion when we apply blockchain to physical art pieces. Especially when we are discussing painting or any other related visual art, it is still limited by the scanning technology, the pixel, the perspective, and the presentation. NFT itself has been put to a digital-oriented perspective which does not require extra attention to the art-making process, not to mention the context of the art piece when it is presented to the audience. This will encourage the public audience to focus mainly on ownership but not on art appreciation and analysis. It is impossible to observe, for instance,

the painting by Vincent van Gogh, in which you cannot see the stroke of the paint, the pigment that he chooses for the visual effect. A digital copy is closer to a 2D scan of the work.

Then what is the true essence of *"new form of people's relationship with art"*? How does NFT affect aesthetic decisions by infiltrating the traditional art world? Does NFT provide such a new form between humans and art? It is very likely that this question is bring us back to the conversation of gamechanger in the previous chapter as if the example that I have stated by using music experience from analogue to digital. However, there is also one critical point in this discussion. As I have stated above with the example of analogue to digital, NFT does not provide a fundamental change to the art world. At least the way to experience, create, to think is fundamentally the same with some alternation in the detail. For instance, the ownership, the security, the authenticity. The implementation of NFT in the traditional art world can effortlessly create an illusion that combining blockchain technology is an innovation since it is promoted and exaggerated to be a "new form of art". With some of the traditional art galleries and museums applying the NFT to reality augmented the signal of trending nowadays. NFT does provide changes to the art scene, but not as influential as "analogue vs digital" by comparison. What I am trying to argue is to prevent the discussion will be misled too, ideally, NFT has brought no new forms of relationship because it is not a game changer in the whole context. If, again, we are taking the way to experience, to create, to think of artwork as a general surface of the discussion, what NFT brings is, to certain extent, only a limited affection to the practical form.

The advancement of computational technology has undoubtedly influenced the interaction between humans and technology. The implementation of the graphic interface, mouse icon, double click gesture, and left and right click have brought humans to a new era without learning computer coding to give an order (Meecham, 2013). And NFT plays an important role in the design and aesthetic of the trading market, making the graphic interface, user experience more oriented to favour the popularity of NFT artwork. The frames of the NFTs shifting in the main page accompanied with the price in Ethereum, organized categories to bring a user-friendly environment, ranking system and "Notable Collection" headings to catch attention and a specific resource for educational purposes to provide materials to the public audience. The whole selective market has been encouraged by the popular artwork on the market (Ng, 2022). This approach confirmed what Loytard, a French philosopher has

described the new technology has a tendency that it is designed to serve mental or linguistic operation but rather to mechanical operation (Loytard, 1989). What Loytard indicates about the mental or linguistic operation provides an essential aspect of the linkage about how the NFT aesthetic is affecting the art scene by its popularity. Human is highly oriented to visual, by what we are seeing, presented in front of us, including visual art and text. Human is, to a certain extent, controlled and limited by our visual sense. We tend to not seek for the machine to substitute our phycological mindset, we create new machines or technology to assist our behaviour and idea, and to use technology to explore our vision. I was once having a conversation with my colleague about the gaming engine nowadays, what he mentioned is an interesting notion that modern game design is mostly about the graphical details, how the visual engine can simulate the actual light reflection, and how the physical calculation can fit in the reality. All the visual effect is about achieving a "real" world in another dimension, for instance, the "Unreal Engine 5". Thus, what he believes is that the focus of game design has been shifted to graphic design but not game design. It is similar to what I have stated that human is highly limited by visuality, and NFT is encouraging the focus to be placed on the visual-oriented aspect that could be limited our understanding towards visual art. And we are positioned inside a box that we allowed ourselves to be limited by the regulation.

Moreover, NFT also emphasizes the interaction between the artist, owner, and art enthusiast. Such as the gaming platform, "Axie Infinity" and "Crypto Kitty". This type of pet-raising NFT game has combined interactivity and visual-oriented aspect in one single platform. As I have mentioned in the earlier part of this chapter, gamers are limited by the design of the game. From the gaming system to the controlled "customised design" of the pet. Unlike usual video, TV, or film, we are placed in a passive position. The game provides an interaction which gives the right to the player to be not only a participant but also an editor in the game. Even the gamer itself can be an "artist" in this circumstance. In addition to the gaming platform, enhancing interaction in the music NFT platform is also getting popular in this day and age. For instance, "Unchained Music" and "Royal" provides a relatively closer relationship between composer, artist, and music lover. By applying the opportunity for shared streaming loyalties, composers and music lovers can get to a closer connection for owning the music, and even community building is possible in this scenario. Composers or singers used to be described as difficult to reach, the invisible hierarchical wall that build between these groups of people. The effect of NFT in the music scene is rather relational, the examples that I have discussed in the first chapter is the key point to explain the influence of

NFT. This phenomenon is a unique chance for the stakeholders in the music world. Composers and singers have a closer chance to communicate with their fans to gather feedback and comments, fans can gain more insight into the musician's life on how they make music. Ryuichi Sakamoto, the award-winning composer launched his first NFT in 2021, by dividing the main theme of the movie "Merry Christmas Mr. Lawrence" into 595 notes and selling them with blockchain (Cheung, 2021). This gesture marked an important meaning for NFT's position in the art scene nowadays as if the state Hermitage Museum in St Petersburg has applied blockchain technology to the artwork. What the buyer will get, is a single note of "Merry Christmas Mr. Lawrence" with the piano version of the score in a jpeg file. In other words, 595 notes are separated in the same amount of jpeg. There are some voices on the internet saying that this is a pure "money-making" purpose than an artistic approach. Some opinions are even pointing to the "pixel" of a photo or a painting, in which artist can split their work into thousands or millions of pieces and mint it as an NFT artwork. Nevertheless, more affection from NFT in the music world is still developing nowadays, from the form of community building, sharing royalties, or alternative art forms. The direction of how NFT could bring to the music world is intriguingly unpredictable.

Nonetheless, it triggered the debate of using NFT as a tool in terms of how it could be utilised as a profit-making or "issue raiser". A similar example can be found in the case of WikiLeaks founder Assange who has been accused of 18 charges, including breaking a spying law in the U.S. (Guardian, 2022). This news has been quickly spread to the society of Cryptocurrency supporters and NFT-related participants, they raised an NFT artwork, "Clock", which counts the number of days of Assange has been imprisoned, and it is soon bought by more than 10,000 Assange supporters for more than $52.8 Billion (Guardian, 2022). Making it the second-largest NFT sale of all time (Thomas, 2023). The group of Assange supporters is called "AssangeDao", a decentralised autonomous organisation that allows a member to pool their money and make the decision based on their blockchain tokens in order to decide the organisation could run (Ethereum).

The interactive environment is not only limited to a 2D dimensional space, what has been raising since the bloom of NFT is followed by the popularity of "Virtual Reality" (VR) in the recent day. The concept of VR is similar to the above examples, while the combination is expanded to three-dimension. Meta is one of the most important examples to encourage interaction with a user through VR, but as I have stated in the first chapter that Meta is

suspending the support for NFT in the Metaverse. But what the application of NFT in VR has brought to an extended level of discussion. Intriguingly, you can still discover some applications which are connected to NFT on the "Meta Quest" website, an application app for the user of the Meta VR product.

Spatial, a metaverse-building website is working on building gallery space on Metaverse. Their idea is to share and built community while using 3D as a means to mint the space for selling or showing NFT (Spatial). Their website has a similar design to the NFT trading platform, OpenSea, with a similar popularity and ranking system. There is one page from the Spital website, it showcased the concept of having Metaverse as an alternative gallery space, people are wearing their own VR goggles and participating in the opening scene of the Metaverse gallery. The space is similar to an ordinary gallery space but it is fully customisable for any specific needs, you can curate such as the colour, the height of the wall, the size of the art piece, and where to place it. From the ground-to-ceiling glass to the design of the chair in the middle of the gallery space surrounded by the artwork. There are thousands of metaverse spaces created on Spatial, from what I have experimented on Spatial, you can access any gallery space without having a VR goggles or any account. Making the accessibility very simple and equipment-friendly. A user who only has a normal notebook can use the direction keyboard "WASD" to wander around the gallery space. What they have suggested is you can connect the wallet which is linked to the NFT artwork then it can be placed in the Metaverse gallery. Showcasing 3D work is way more feasible than reality since the user is positioned in a 3D environment powered by simulation graphics. For instance, models, sculptures, pottery, and so on. It is apparently similar to the concept of Meta, to bring everyone together without stepping out the door of your own place. From the point of view of an artist, it has certainly provided a convenient and cost-effective method to establish their own space. Especially when the shipping cost, space, and transportation are no longer a hindrance for curating an art gallery, but rather, the space design and the interaction with the participant. The advantage of having a metaverse gallery is innovative in terms of interactivity. Considering the physical limitation, normally participants could not meet the artist in person if the exhibition is being held on the other side of the world. However, with the help of the metaverse, connecting with every stakeholder can be done seamlessly nowadays. But on the other hand, it is still controversial with the idea to bring traditional art to the metaverse due to the loss of visual effect, which could be a reason for greater

technological advances to improve the visual defect of the artwork in the metaverse. And NFT plays a trigger in the development of presenting art in the metaverse.

Figure 4: NFT art gallery on Spatial

Similar ideas can also be seen in architecture, "Mars House", the world's first digital housing NFT has been sold for 288 ETH on an NFT market SuperRare in 2020 (KK). The Mars House has been created during the peak of the Covid-19 period. Krista Kim, the creator of the Mars House explained her notion between human and digital space as a therapy in nowadays intensive data process and data pollution, a digital space inspired by the Zen philosophy and meditation (Sotheby's, 2021).

"...in our world of relentless distraction and data pollution from our digital devices and social media platforms."

Combing architecture and humanity is also a spotlight on NFT art. Zaha Hadid, a London-based architecture office has launched a virtual art gallery called "NFTism" for Art Basel Miami in 2021, the metaverse focuses on the interaction between humans and the design of architecture (Stouhi, 2021). The space in the metaverse is, therefore, turning into a more interactive space for humans than what Krista Kim has accomplished in her Mars House. Andrés Reisinger, an Argentinian digital artist who is based in Barcelona, Spain, has sold 10 digital pieces of furniture on Nifty Gateway within 10 minutes for more than $450,000 US dollar (Hahn, 2021). Five of furniture will turn into a real piece and be sent to the buyer, the creator himself has described that he is not leaving the physical world but rather an

exploration on NFT to seek the extended reality (Hahn, 2021). What NFT stimulated is the discussion of using metaverse and digital space as another form of "reality". It has been a huge debate in the last few decades regarding the difference between reality and the digital world, but the existence of NFT blurs the boundary between these two aspects. With digital gadgets and AR devices, people can access the metaverse with their identity and connect the items through the digital wallet to the space. Making the metaverse "connect" with reality. A person could bring their favourite painting or furniture into the metaverse almost effortlessly, which follows a question regarding this statement. What is authenticity? The so-called "authentic" or "real" item is moved into the metaverse as part of the original item, with the essence of NFT to provide the "authenticity" in the metaverse, the authenticity is no longer unique since there are "two" authentic items in two parallel spaces, the online and offline. Regarding the issue of authenticity, I will further explain it in the later part of this chapter. Having a parallel development of the art piece in the reality and digital world is another issue that should not be ignored. As I have discussed the lower cost and fewer materials needed for digital space, metaverse or any digital art piece can be created in different materials, size, scales, places, and so on. The limitation from reality can be eliminated due to the free choices in the digital world, what normally takes more than a few years to achieve can be done in less time for art creation. Especially in the field of architecture, what we normally see in science fiction, is a flooding screen, a translucent interface of a phone, a phone call with a hologram projection, and a futuristic vehicle.

Art gallery and architecture is not the only beneficiary in terms of breaching physical limitation, with the help of the metaverse, a fashion designer can now design and execute their idea in a digital space without any physical limitation. "The Farbricant" is one of the digital fashion houses that promote digital fashion only in their product.

"Build a new fashion industry where everybody practices and profits."

The above slogan on their website has shown a clear message to everyone, which they are encouraging fashion to become more accessible and beneficial to different parties, regardless of the fashion designer or consumer (The Fabricant). Co-Creation is the term that they have used as one of the core concepts, a passive consumer can turn themselves into creators, and royalties are evenly divided among participants who are involved with the making process. As long as you are an NFT holder, you can create, trade and wear different digital fashion

products on the platform (The Fabricant). The marketplace of The Fabricant has more than 1000 pieces of digital fashion items, all of which are minted in blockchain technology. What The Fabricant is trying to establish is a platform that allows everyone to build their own fashion design, even though they do not know any fashion-related knowledge. For instance, the understanding of the material, practical skill of sewing and stitching, cost of the working space, and so on. Creators can now create a piece of garment which is impossible to reality but in the metaverse. From the flooding water-made dress to colour-changing clothes that are based on the emotion of the person. In 2021, The Fabricant has launched a crossover with shoe brand Buffalo London, the items featured a flaming sneaker that can be "worn" digitally with the 3D software to scan the photo and merged the flaming shoe (Hahn, 2021). Again, this is similar to what I have stated in the chapter about artistic distribution in the NFT world. The platform that The Fabricant is creating a similar to Axie Infinity, to provide a user-friendly environment for every participant who would like to be a creator. Erasing this condescending position between creator and consumer provides an easier entry for everyone. Especially fashion is a common area that can be used in different areas, for instance, augmented reality, metaverse, virtual stores, video games collectibles, and so on (3DLOOK), making it more effective to maintain artistic distribution.
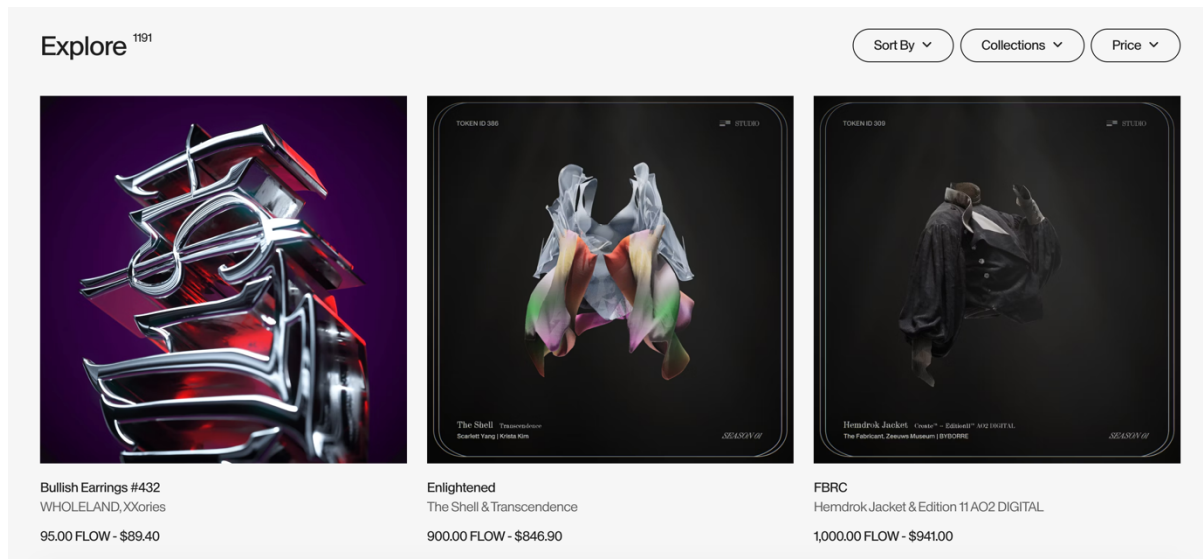

Figure 5: Market place on the digital fashion house "The Fabricant"

Another important affection from NFT is the copyright issues in the art world. Every NFT has a traceable record due to blockchain technology providing unique, irreplaceable, and indivisible properties. Then if might cause an issue when a physical art piece is attached to being part of the NFT work and being sold in the Market, the copyright problem could be

ambiguous, unless the sale is included with terms of the copyright. In my point of view, the implementation of minting the physical art piece is, to a certain extent, meaningless. From what I have stated at the beginning of this paragraph, uniqueness, irreplaceability, and indivisibility is the key to lending the power of affection to NFT. If a physical art piece is copied and cannot be transferred physically, then what makes the NFT art piece special? Then what is the affection that could bring to the physical art world? One of Banksy's paintings "Morons" was burned in 2021 with a live-streamed video, a painting that criticizes the art market with an auctioneer at Christie's (Criddle, 2021). The painting was then soon minted to an NFT and has been sold via a digital token with $380,000 US dollars, which is nearly 4 times more than its original physical piece. What we should consider in this expressive art action is not really about how a physical piece is being destroyed, but rather, the question of copyright issues. As I have argued the downside of physical art pieces attached to the blockchain and being sold with a digital token when the physical art is destroyed for a chain of reasons. The only "authentic" piece is the NFT itself, a digital copy of the original work placed in a jpeg file filled up with millions of pixels which is supported with blockchain technology to confirm the authenticity of the art piece. Therefore, the "Moron" NFT has a higher value than its original piece and maximizes the value. Under such circumstances, the copyright issue seems to have a new solution from the affection of NFT. In other words, NFT is slowly engaging the trend of digitizing art pieces by accelerating and emphasizing the importance of digital art, making NFT more likely to be a side product of the period of digitization. It is still debatable of which form of art should be presented and shown in front of the audience. From classical painting to an augmented reality metaverse.

Figure 6: Screenshot from the video clip of the burning ceremony of Banksy's work "Moron"

The security issue of implementing NFT into art pieces has always been a huge highlight for NFT supporters. The non-fungible token relies on the blockchain system, which is a recorded transaction of the item that being sold on the public platform. With the mutual agreement of both parties of the transaction, NFT and cryptocurrency can be transferred instantly (Das, 2021). The growing market of NFTs such as Opensea and Axie catches the attention of Art lovers and investors which drives them to get involved in the market a lot more. The data from the largest NFT market, Opensea, reached nearly $5 Billion US dollars in trading volume at the beginning of 2022 (Dune). With the bloom of the NFT market, cybercriminals and scammers are starting to threaten the security issue of NFT which raise the alarm for user and artist across the globe (Das, 2021). A hacker has successfully sold a fake Banksy art piece for $336,000 US dollar through an auction (Tidy, 2021). Similar impersonation happened in the NFT market as well, the artist Derek Laufman has been reported from a few platforms by his follower regarding his action of selling NFT art on Rarible. That turned out to be a fraud and the perpetrator successfully passed through all the verification procedures on the platform (Stephen, 2021). A Bored Ape Yacht Club NFT from Taiwanese hip pop star Jay Chau was reported to be stolen through a phishing website (Shen, 2022). The address of the wallet which has been traced to receive the NFT was marked to an alert sign on Etherscan, a website that could chase the record of the Ethereum transaction (Yeoh, 2022).

The truth behind all these frauds and scams has various reasons. One of the reasons is the verification procedure of the NFT market has not been monitored sufficiently, it has been reported that there are no NFT markets that have reinforced the KYC (Know your customer) nor the implemented AML/CFT (Anti-Money Laundering/Combating the Financing of Terrorism) method. Thus, any user can hide their trace without any record, they can even create multiple accounts to strengthen their incognito (Das, 2021). The security issue caused by the trend of NFT has raised the discussion on whether NFT is safe for investment and art making. If the digital art piece can be stolen in a glimpse, then what can be done to protect the artist, collector, and buyer? There are several reports indicating and suggesting a few solutions for the NFT market (Gupta, 2022) (Das, 2021), but what I would like to focus on in this thesis is the potential problems of security that could affect the decision of art-making from the perspective of an artist and art lover. As I have stated in this paragraph, the identity issue of the seller or the items is not clearly stated, the 2FA (Two-Factor Authentication) a system that can greatly enhance account security is not implemented in most of the popular NFT platforms, such as OpenSea and SuperRare (Das, 2021). The lack of security measures could be a disadvantage to the development of the NFT, which could affect the confidence of artists and art lovers to participate in the NFT world.

Even if NFT has not been considered as a game-changer with all elements and proofs provided in the discussion. It is still a new force that arrived in modern art history with a certain impact on every art-related aspect. What I have discussed is only part of the evolution, regardless of the extended reality, copyright issues, and politics of NFT aesthetics. All these aspects are changing rapidly in a way that could not be predicted. Apparently, the raise of NFT in 2021 has successfully stormed the art world with a new wave of digital development. But as I have stated, NFT is more likely to be a side product of digitization than a new form of art revolution. From the art lover and artist relationship to the problems of the copyright discussion. It somehow created a new platform or way to consider the relationship between humanity and art, but every time when I think of the situation of the NFT, it is always mixed and unclear. Especially in terms of the extended reality and the politics of aesthetic topics of NFT. It is always blurry which NFT is seemingly being used as a money-making tool and another form of manipulation. What it has influenced is, in my opinion, a double-blade sword which could easily be shifted to another irrelevant topic. Nevertheless, it is surely beneficial for artist to establish their brand and sell their work on a platform that could reach different audiences, the essence of NFT should be placed into contributing to art development and

stimulating a critical discussion in society. Overemphasizing a particular aspect such as investment is a relatively negative direction that NFT should not be led. But what is the balance point of development? What is, in fact, beneficial to the whole art world that society should always be placed as the first priority in this day and age.

5. NFT Inspiration on Modern Aesthetics

It is nearly impossible to give a definition to the meaning of aesthetics in a changeable world. "Modern", a word to describe nowadays situation is barely a rhetorical meaning that could generalize all types of forms. But when we are dealing with aesthetics, we must be cautious about the approaches so we will not be constrained by a pure pursuit of the definition. Because it is meaningless to set a particular way of understanding aesthetics while it changes so rapidly. We should focus on general approaches and different recommendations to understand art in various aspects (Weitz, 1956). What I would like to address in this chapter is to enumerate the possible way to understand the aesthetics of NFT, from its bloom in 2021 to the decline after Meta decided to shut down its support of NFT.

It is obvious that the bloom of NFT drives the world to new approaches to explore the digitization of art than before. The digital world has a completely different approach than traditional art, it encourages users to play with the creator's software, from 2D illustration to 3D metaverse. A fully digitized art piece can be uploaded and shared effortlessly to the NFT market, a concentrated point for every person from the world to access. Digitization is inevitable, or to be precise, pixelization is inevitable. Especially for artist who is not working with digital work that often. How to digitize the work, how to adjust the resolution, size, quality, colour calibration, and so on. The meaning of being an artist in this day and age has pointed to a direction of being a "multi-talented person". One must learn how to draw, design, photograph, sculpt, module, compose, mint, and so on, traditional way of art making has never been as challenging as before. The focus of art schools has been changed to a new direction that they cannot teach only one specific subject such as taking photographs, they must also consider the student who is going to graduate soon after a few years of study in the art school. If one is a painting student in an art school, for example, one must also learn how to illustrate work through various software, how to manage the branding of themselves, and even explore other areas besides painting. NFT is one of the catalysts that drive this process further, even if the result is probably not visible yet. Learning other tools and software to broaden student horizons is common nowadays. But, nevertheless, it will not be surprising if an art student is required to create a crypto wallet and learn how to get involved in the NFT market as part of the curriculums in the future. Therefore, it is foreseeable that the art piece in the future is most likely to have combined multi-media as one of the trends in the future. And it is getting popular that artist is working with multi-media such as animation and sound

together on the NFT market. It is, inevitably, a huge momentum that drives the art world to a multi-media universe.

Artist is not the only affected group in the whole art world, collector and art lovers are also part of the game to engage with the digital world. Create a new cryptocurrency wallet for the NFT market, purchase new VR gear for an alternative gallery experience, and learn a new tool for the art-making process. The whole ecosystem is getting its improvement and correction during the process of development, making it more mature and effective to allow different participants to take part. This is merely what makes NFT remarkable as a catalyst during the digitization process. What follows after digitization is an enormous area to discover, such as the aesthetic of the art-making process in between reality and the digital world. How to achieve the style of the NFT world so it could be profitable in the market? What sort of styles or approaches should be adapted so they could catch the spotlight from the public audience? It is, in fact, not ideal to consider the public audience that much to create an art piece, not to mention making art from the perspective of demand from the market. However, the trend in NFT is very likely to encourage this ideology to create art pieces according to the need or trend in the market. Especially with the support of various NFT markets which emphasize the ranking system and trading volume. With an eye-catching news title on social media, the amount of money that earns from selling NFT is even more tempting in this scenario. Thus, turning NFT into a tool for pure money-making than art promotion.

The sensational profit-making through selling art pieces online has undoubtedly brought huge attention to the NFT world, which triggered a chain of exploration on the usage of NFT in terms of how we can reach to a refreshing and innovative way of the profit-making process. NFT provides an essential inspiration in terms of space usage in the art world as I have enumerated in the affection chapter, the space for presenting art pieces, unlimited space for imaginative creation, and sharing workplace. All these examples are due to the birth of NFT and then customized to reach the maximum advantage, especially during the bloom of NFT and the Covid-19 period. Artists and creators follow the trend of NFT to create related art pieces which have a similar module to maximize the beneficial outcome. Some even expand it to reality such as the Bored Ape Yacht which is a group of related NFT holders who have established a restaurant with a related design. This is one of the most significant examples of all. The other example in which we can see a huge inspiration from NFT is Spatial, the digital

gallery which implemented the metaverse as an extended reality to breach the limitation in the real world, physical, visual, and communicational. Nearly all single details are designed to be a tool for NFT presentation in the space, a user-friendly interface and free entry to every space created by different creators. Extended reality or "X-reality" or "XR", the term which has been found in the 1960s, and was used as visualization through electric glasses in the 1990s, it was then introduced as "Cross-reality" later (Coleman, 2009). The utilities of Extended reality have been categorized as "Virtual Reality" (VR), "Augmented Reality" (AR), and "Mix Reality", and a recent study has proven this XR technology contains high potential in terms of innovating in design, building, operating, and monitoring in the architectural aspect (Alizadehsalehi, 2020). In the second chapter where I discussed about the example of Zaha Hadid and architecture-related NFT is a clear example that NFT has been utilized as a part of the experiment in space design and utility. It is crucial to consider the question of what reality as an artist during this experimental period of extended reality is. Since our visual can now be expanded to another metaverse with millions of data transferring, what was considered as physically impossible is no longer an issue with the help of XR technology. From a flooding chair equipped with a futuristic interface to a 3D sculpture with animation. The line between the digital world and reality is gradually changing to blurry and ambiguous. The work that is created in the reality can seamlessly blend into the metaverse, and the work in the metaverse can also be reproduced in the reality. The question has turned to a point in which, as an artist, picking up one side as their artistic decision on either working with an art piece in reality or the digital world is no longer an option. But rather, a combined package when an art piece is confirmed to be made. When reproducing a work on either side of the universe is inevitable, the artist then must consider the possibility of the aesthetic. Hence, which side has the highest value if both universes must be considered as the authentic piece? What is reality if both have applied similar means to ensure its authenticity and claim themselves as the "real" piece? It is a huge debate with various disputes regarding this topic. One can say the art piece is real because it is made by "hand", combing the materials and the physical limitation, the art piece should have an upper hand when compared with the digital version. While on the other hand, the digital work is also made by "hand", but it is secured in a digital space with a unique code to protect the "real value". It is difficult to have a conclusion for this debate since when an art piece was made, the artistic decision had been positioned according to the will of the artist in the first place. When an artistic decision is involved, then the discussion is doomed to be vain and impossible to give an objective opinion on a decision that is encompassed with personal

value, environment, and experience. However, it does not mean that one should ignore the meaning of what NFT have triggered in the aesthetic decision-making process. It is getting popular to combine these two universes, and it is perhaps the most suitable way nowadays.

In addition to the real issue that is triggered by NFT, the general aesthetic of NFT artwork should also be placed as one of the concerns. As I have explained in the previous chapter, most of the NFT work in the market has a relatively high tendency to imitate the same module, and then reproduce it into another art piece. It highly encouraged a simplified concept of art making to the public that having the same module and providing different designs of the work can be returned with a great amount of reward and unexpected results. As a result, a trend with an encouraging environment to imitate a similar style of art could not bring innovation and creativity. We should even be more cautious about the recent trend with AI-supported engines, such as AI-generated pictures, writings, and so on. The latest news has shown that AI-generated images win the Sony World Photography Awards 2023, as an overall winner in the creative category despite the artist's refusal to accept the award (Zhang, 2023). The consequence of using AI machines could be sensational and unpredictable, even if there is no obvious connection between NFT and AI at this moment. But it is foreseeable that AI could be used broadly in art-related areas. With the characteristic of being highly reproducible, the NFT market is very likely to be the first place that is being used as a means for experimenting with AI-produced art pieces. We should all keep an eye on the future trends in the NFT market, because it is one of the most convenient spots for the future development of the latest NFT art, especially with the uprising momentum of AI.

It has led us to the question of how to balance the needs and artistic approach during the art-making process. For instance, one can use either a dishwasher or hand wash a dirty dish if the ultimate goal is to "clean a dish". The question is which method suits the best in terms of, for instance, the duration of the washing process, hygiene issues, and the relationship between who is responsible for dishwashing and those who are not. First, the duration of the washing process, the time that requires for either a dishwasher or hand wash. One might find the former more convenient because it requires less focus and effort than washing it by hand, while the latter one requires full attention during washing. There is no absolute right or wrong in this scenario nor in the circumstance of art making. The time that one decided to spend during the process is entirely up to the artist if they would like to "wash a dish". Then what makes the situation decisive if an artist would pick up one specific method? Second,

hygiene issues, the question of which method of washing could maximise cleanliness and produce less harm to the user. If one decided to use a dishwasher to clean all the dishes, it is surely produced less harm to one's hand since they have relatively less or even zero contact with the chemical from washing detergent. And the effort that requires from the users is way lesser than hand washing, since once the program in a washing machine is set then the user does not need to pay too much attention to it. However, it does not mean that hand washing is entirely incomparable to the dish washer. Users can control the duration of the washing process and they can see from the actual situation whether it is *visually* clean or not. One also has full control during washing because the whole process requires attention. Now it involves how much the artist would like to pay attention to the art piece. The way they "wash the dish" can be highly engaging or the other way, they could take care of the details closely by hand or it could be handled by machine to finish the process. The situation will become more complex when combines with the factor of time. Lastly, the relationship between the person who oversees the dishwashing and who is not. This factor is more about taking care of the other person who is going to use the dish in the future and the way how one is washing it is the point of the discussion. In other words, to be considerate of who is the next or potential user. Because the way how one washes the dish, and the time spent on the dish are important in this issue. As if an artist could not ignore who will be the audience and buyer. It is, indeed, that we take for granted that making art is to show it to others, in which there are a lot of artists who rarely show their work to the public. However, this is actually the essence of NFT nowadays, that it encourages all the NFT artwork should be published to the market. Hence, artist is inevitably to consider who will be the targeted audience under this circumstance.

6. Coda

After the cryptocurrency crisis in 2022, most of the crypto plummeted, including Bitcoin and Ethereum, from its top to almost the beginning before the bloom in 2021. NFT markets are also unavoidable with the affection of the crypto market. The fluctuation of the value of crypto brings less confidence towards NFT art pieces, due to its highly affiliated relationship with cryptocurrency. News that are related to NFT hence slowly stepping out from the stage for a while. NFT art is now entering its recession or doom is still early to conclude. But one cannot deny that during this short period of time, NFT has stimulated various discussions, and affection in the art world. From a jpeg that could be sold for millions of dollars to the usage of metaverse for NFT gallery. Nearly all category of art has been experimented with in the field of blockchain, such as illustration, painting, audio, VR, photography, ticketing, and so on. The potential of NFT still exists and could provide a reference for future artistic development. Nevertheless, one must not ignore the over-development of one particular style of art making, which could possibly affect the balance of how we perceive art, the aesthetic. One should not underestimate the potential affection from the aesthetics that is or was dominated the trend in the art field. Understanding the flow of art is equal to understanding the world more. And it requires an open-minded and critical way of thinking to obtain the pattern of art development. And NFT art is merely a small cube of ice in the Arctic, but because of the birth of NFT, it coincidently happened in this day and age. This is essential for artists to understand the trend of why it is bringing such affection to the world but not ignoring it as if it is harmful in its essence. The meaning of art and artist changes as time goes by, it is perhaps that we are too used to staying in our comfort zone and forgetting about the meaning of art to provide a critical perspective to the world but not to follow them blindly. It is dangerous that we are trapped with the aesthetic of believing the form of art and artist is lodged in what we think it is supposed to be. I must admit that it is not simple to lead the discussion in an appropriate direction, nor to speak to the public in a condescending position that the way of thinking has flaws. But rather to open the discussion to the public that we should consider art and aesthetic in an alternative way. When an art piece is finished, the form or aesthetic is therefore fixed and relatively difficult to be changed by the period when it was born. However, human being is ever-changing, and the form of art changes with the flow of humans. Ever-changing is the nature and essence of a human being that one should not forget. As if our way of thinking and understanding should always follow and be critical of the trend. Thus, we should study the trend in the art world and understand their affection.

"Ars longa, vita brevis",

"Art is long, life is short".

Bibliography:

anotherblock_io. (n.d.). How it works. anotherblock. Retrieved April 2, 2023, from https://anotherblock.io/how-it-works

Alizadehsalehi, S., Hadavi, A., & Huang, J. C. (2020). From BIM to extended reality in AEC industry. *Automation in Construction*, *116*, 103254.

Berger, J. (2008). *Ways of seeing*. Penguin UK.

Bogart, A. (2007). *And then, you act: Making art in an unpredictable world*. Routledge.

Cheung, A. (2021, December 30). Ryuichi Sakamoto releases his first-ever NFT. Mixmag Asia. Retrieved April 7, 2023, from https://mixmag.asia/read/ryuichi-sakamoto-releases-first-ever-nft-local

Coleman, B. (2009). Using sensor inputs to affect virtual and real environments. *IEEE Pervasive Computing*, *8*(3), 16-23.

Criddle, C. (2021, March 9). Banksy art burned, destroyed and sold as token in 'money-making stunt'. BBC News. Retrieved April 7, 2023, from https://www.bbc.com/news/technology-56335948

Das, D., Bose, P., Ruaro, N., Kruegel, C., & Vigna, G. (2021). Understanding security issues in the NFT ecosystem. arXiv preprint arXiv:2111.08893.

Decentralized Autonomous Organizations (daos). ethereum.org. (n.d.). Retrieved April 7, 2023, from https://ethereum.org/en/dao/

Guardian News and Media. (2022, February 9). 'cypherpunks have rallied to Assange': NFT auction raises $52m for WikiLeaks founder. The Guardian. Retrieved April 7, 2023, from https://www.theguardian.com/media/2022/feb/09/julian-assange-cryptocurrency-fundraiser-nfts

Gupta, Y., & Kumar, J. (2022). Identifying security risks in NFT platforms. *arXiv preprint arXiv:2204.01487*.

Hahn, J. (2021, January 28). Buffalo London sets iconic platform trainers ablaze for first digital-only product release. Dezeen. Retrieved April 7, 2023, from https://www.dezeen.com/2021/01/28/buffalo-london-the-fabricant-classic-burningfor/

Hahn, J. (2021, February 23). Andrés Reisinger sells collection of "impossible" virtual furniture for $450,000. Dezeen. Retrieved April 8, 2023, from https://www.dezeen.com/2021/02/23/andres-reisinger-the-shipping-digital-furniture-auction/

Wang, Q., Li, R., Wang, Q., & Chen, S. (2021). Non-fungible token (NFT): Overview, evaluation, opportunities and challenges. *arXiv preprint arXiv:2105.07447*.

OpenSea. (n.d.). Bored ape kennel club - collection. OpenSea. Retrieved April 2, 2023, from https://opensea.io/collection/bored-ape-kennel-club

OpenSea. (n.d.). Kingship - Collection. OpenSea. Retrieved April 2, 2023, from https://opensea.io/collection/therealkingship

OpenSea - Dune. (n.d.). Retrieved April 7, 2023, from https://dune.com/rchen8/opensea

Mars House. kk. (n.d.). Retrieved April 8, 2023, from https://www.kristakimstudio.com/marshouse

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), 20902.

Ng, W. L. (2022). A New Era of the Visual Art Market?: A Platform Analysis of the biggest NFT market OpenSea on Diversity and Equality.

Martin, M. (n.d.). Fighting the algorithm: How "cookies" influence our lives in more ways than we think. Retrieved April 2, 2023, from

https://nerinxhallways.org/2607/features/fighting-the-algorithm-how-cookies-influence-our-lives-in-more-ways-than-we-think/

Meecham, P., & Sheldon, J. (2013). *Modern art: A critical introduction*. Routledge.

Meta. (n.d.). Meta. Digital connection in the metaverse. Retrieved April 20, 2023, from https://about.meta.com/metaverse/

Mystakidis, S. (2022). Metaverse. *Encyclopedia*, *2*(1), 486-497.

NFT in fashion: 6 creative ways brands are capitalizing on nfts. 3DLOOK. (2023, March 1). Retrieved April 7, 2023, from https://3dlook.me/content-hub/nft-in-fashion/

Chayka, K. (2021, July 30). Why bored ape avatars are taking over Twitter. Retrieved April 2, 2023, from https://www.newyorker.com/culture/infinite-scroll/why-bored-ape-avatars-are-taking-over-twitter

Rancière, J. (2013). *The politics of aesthetics*. Bloomsbury Publishing.

Thompson, C. (2023, March 14). Meta will end support for nfts on Instagram, facebook. CoinDesk Latest Headlines RSS. Retrieved April 2, 2023, from https://www.coindesk.com/web3/2023/03/13/meta-will-end-support-for-nfts-on-instagram-facebook/

The Fabricant. (n.d.). Our Mission. About us. Retrieved April 7, 2023, from https://www.thefabricant.com/about

Thomas, L. (2023, February 21). The 20 most expensive NFT sales of all time. nft now. Retrieved April 7, 2023, from https://nftnow.com/features/most-expensive-nft-sales/

Tidy, J. (2021, August 31). Fake banksy NFT sold through artist's website for £244k. BBC News. Retrieved April 8, 2023, from https://www.bbc.com/news/technology-58399338

De Marchi, N., & Van Miegroet, H. J. (2006). The history of art markets. *Handbook of the Economics of Art and Culture*, *1*, 69-122.

Spatial. (n.d.). NFT Gallery: Create your own metaverse art gallery 🖼️. 🖼️. Retrieved April 7, 2023, from https://www.spatial.io/create-your-gallery

Stephen, B. (2021, March 20). NFT mania is here, and so are the scammers. The Verge. Retrieved April 8, 2023, from https://www.theverge.com/2021/3/20/22334527/nft-scams-artists-opensea-rarible-marble-cards-fraud-art

Shen, X. (2022, April 1). Taiwanese star Jay Chou says Bored Ape NFT was stolen by 'phishing website'. South China Morning Post. Retrieved April 8, 2023, from https://www.scmp.com/tech/tech-trends/article/3172790/taiwanese-star-jay-chou-says-bored-ape-nft-has-been-stolen

Sotheby's. (2021, November 10). Samsung's state-of-the-art 98 inch Neo Qled TV on view at Sotheby's. Retrieved April 8, 2023, from https://www.sothebys.com/en/articles/samsungs-state-of-the-art-98-inch-neo-qled-tv-on-view-at-sothebys

Stouhi, D. (2021, December 2). Zaha Hadid architects presents virtual gallery exploring architecture, NFT's, and the metaverse. ArchDaily. Retrieved April 8, 2023, from https://www.archdaily.com/972886/zaha-hadid-architects-presents-virtual-gallery-exploring-architecture-nfts-and-the-metaverse

Lyotard, J. F. (1989). Complexity and the Sublime. *Postmodernism: ICA documents, Free Association Books, London*.

Luke, Shaw, Stoilas. (Host). (2021, February 26). WTF are NFTs? Why crypto is dominating the art market [Audio podcast episode]. In The Week in Art. The Art Newspaper.

Primus, T. (2022, April 5). *Unique ways to use nfts in restaurants: Foodnotify hospitality*

blog. Unique Ways to Use NFTs in Restaurants | FoodNotify Hospitality Blog. Retrieved April 2, 2023, from https://www.foodnotify.com/en/blog/ways-use-nfts-restaurants

Rancière, J. (2013). *The politics of aesthetics*. Bloomsbury Publishing.

What is metaverse and NFT? - research by CEX.IO. (n.d.). Retrieved April 2, 2023, from https://cex.io/metaverse-and-nfts-explained

Weitz, M. (1956). The role of theory in aesthetics. *The journal of aesthetics and art criticism*, *15*(1), 27-35.

Valeonti, F., Bikakis, A., Terras, M., Speed, C., Hudson-Smith, A., & Chalkias, K. (2021). Crypto collectibles, museum funding and OpenGLAM: challenges, opportunities and the potential of Non-Fungible Tokens (NFTs). *Applied Sciences*, *11*(21), 9931.

Vasan, K., Janosov, M., & Barabási, A. L. (2022). Quantifying NFT-driven networks in crypto art. *Scientific reports*, *12*(1), 1-11.

5 Music NFT Companies Making Waves In The Music Industry (2022) Unchained Music. (n.d.). Retrieved April 2, 2023, from https://www.unchainedmusic.io/blog-posts/5-music-nft-companies-making-waves-in-the-music-industry-2022

Yeoh, A. (2022, April 5). How Jay Chou became a victim of a phishing scam and lost a prized NFT. The Star. Retrieved April 8, 2023, from https://www.thestar.com.my/tech/tech-news/2022/04/05/how-jay-chou-became-a-victim-of-a-phishing-scam-and-lost-a-prized-nft

Zhang, M. (2023, April 14). Artist refuses prize after his AI image wins at top photo contest. PetaPixel. Retrieved April 15, 2023, from https://petapixel.com/2023/04/14/artist-refuses-prize-after-his-ai-image-wins-at-top-photo-contest/