



MASTER THESIS

ORGANIZATIONAL WORD OF ART,
NFT'S AND DIGITAL SKILLS

**A MEANS TO AN END: ARE NFT'S THE MEANS TO
EXPLORE THE LEGITIMACY OF DIGITAL
ARTWORKS?**

STUDENT: VLAD-RADU CIOBANU

FACULTY OF BEHAVIORAL, MANAGEMENT AND
SOCIAL SCIENCE

MASTER THESIS COMMUNICATION SCIENCE

SUPERVISOR: Dr. ALEX VAN DER ZEEUW

CO-READER: Dr. MARK VAN VUUREN

WORDCOUNT: 11.350

UNIVERSITY OF TWENTE.

Table of Contents

1. Introduction.....	5
2. Theoretical framework.....	8
2.1 Financial speculation on NFT's and the dotcom bubble parallel	8
2.2 Institutional change and legitimacy factors in the art world.....	9
2.3 Cultural Gatekeepers	11
2.4 Changes by institutional entrepreneurs	13
2.4.1 Technological changes.....	14
2.4.2 Social changes	14
3. Methods.....	16
3.1 Data collection.....	16
3.2 Data analysis	17
3.3 Research method	18
4. Results	19
4.1 Non-Fungible Tokens.....	19
4.1.1 NFT medium.....	19
4.1.2 Speculation	20
4.1.3 Democracy.....	21
4.2 Traditional institutions	23
4.2.1 Institutional curators	23
4.2.2 Quality establishment.....	24

<i>4.3 Legitimacy</i>	26
<i>4.3.1 Generational shift</i>	27
<i>4.3.2 Knowledge building</i>	28
5. Discussion	30
<i>5.1 Theoretical implications</i>	31
<i>5.2 Practical implications</i>	31
<i>5.3 Limitations</i>	32
<i>5.4 Future research</i>	33
Reference list	34

Abstract

Non-Fungible Tokens (NFT's) take a new perspective over traditional art, by digital artists having massive successes through their digital art without traditional gatekeepers. This is an enlightening example of how technology created institutional change in the art world sector. Some consider NFT's a fraud and their digital ownership is questionable, while others posit that aspects such as transparency, security, and agency, combined with the vulnerable traditional concept of art, have the potential to improve the art sector. For this, the legitimation process should take place. Before this, technology should also be met by social change. This paper focuses on how institutional changes are being made by individuals, how they are caused, and what is needed for them to take place. Thus, the research question is: How are institutional entrepreneurs using NFT technology as a method to populate existing institutions, such as museums, with digital art? The sample consists of 17 institutional entrepreneurs. The study is carried out through semi-structured interviews and shows that NFT's are not considered art intrinsically, but a medium where artists have more autonomy. Moreover, it represents a democratic tool where the artists do not depend necessarily on a prestigious institution to promote their work. However, this comes with a trade-off, due to the power that traditional institutions still hold over the art world.

Keywords: Non-Fungible Tokens, legitimation, institutional entrepreneurs, institutional change, cultural gatekeepers, traditional institutions

1. Introduction

Wang et al. (2021) describe Non-Fungible Tokens (NFT's) as a cryptocurrency derived from the smart contracts of Ethereum. It is important to understand the 2 concepts that form NFT's. First, is the token, which is represented by lines of code that are stored on the blockchain. Second, the non-fungibility, which creates the concept of art, meaning that no NFT is like the other one. This gives value and uniqueness, enabling artists to express their visions through digital art.

NFT's (Non-Fungible Tokens) can bring important upgrades to the traditional art world by making digital assets unique. NFT's are posed to bring in institutional perspectives of technological and social change. From a technological perspective of change, NFT's are made up of media with digital information that is valued in terms of cryptocurrency (Rehman et al., 2021). All NFT's, as stated by Golosova and Romanovs (2018), are recorded on the blockchain, resulting in immutability and transparency towards ownership of the artwork. NFT's can give more agency to artists due to the technology called "Smart Contract", in which artists can add, for example, a percentage to earn by all subsequent sales of their artwork (Pinto-Gutiérrez et al., 2022). Moreover, from a perspective of social change, with aspects such as transparency, agency, authenticity, and security, that belong to NFT's, museums could create a more democratic and unbiased environment, hence should consider the adoption of this new way of creating digital art to support artists. However, due to their traditional nature, they are slower regarding the change, as stated by the participants of the thesis. In this research, we aim to investigate how digital artists explore the art field with NFT technology while popularizing it, in the hopes of democratizing the art world.

Non-Fungible Tokens are represented in a wide spectrum, ranging from static pieces of art to interactive ones, which can be turned into physical pieces, and collectibles. Figure 1 shows four types of NFT's: a static piece of art, an interactive piece of art displayed in Times Square, New York, one that was transformed into a physical piece, and a form of NFT's known as collectibles¹, similar to baseball cards.

¹ *Creating collectibles requires knowledge in coding and graphic designing. The NFT's are made in a 3D graphics software. Each picture has a ".csv" extension that is added in a coding platform, where there are added different attributes, such as discounts, early-access, etc. This process is randomized in order to prevent the owner from having the best attributed NFT. The randomization also creates the rarity of each NFT. A second randomization process takes place by the chosen marketplace, to ensure the authenticity of the collection.*

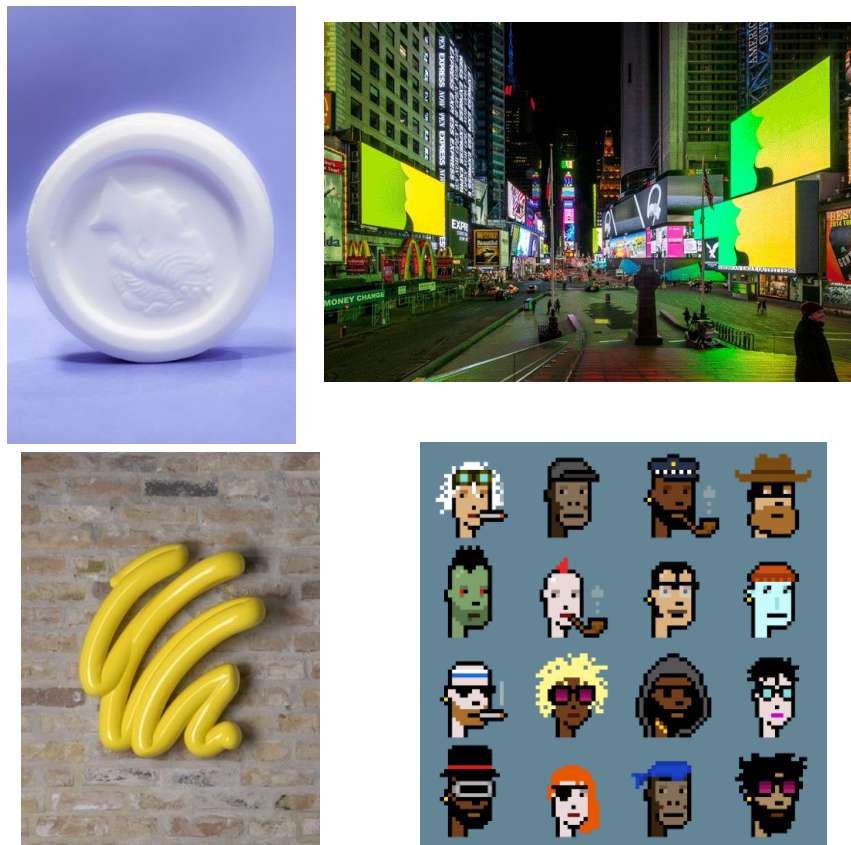


Figure 1 - from left to right: Static piece of NFT art (Wilhelmina Mint - Wyne Veen), Interactive piece of NFT art (Kiss - Rafaël Rozendaal), Physical piece of NFT art (Surprisingly Yellow - Manuel Rossner), NFT's as collectible cards (Crypto Punks)

Other than artists, key players in facilitating institutional change by standardizing new methods of implementing art in museums are cultural gatekeepers, such as curators, art dealers, and art critics. They have the power to allow or deny a new form of art, based on their expertise and aesthetic taste (Bourdieu, 1984; Janssen & Verboord, 2015). However, in recent times traditional gatekeepers might be less equipped to deal with NFT's. First, individuals do not seem to rely on their expertise anymore, and critical discourse takes place in less-honored environments (Janssen & Verboord, 2015). Such changes may have an impact on traditional gatekeepers and institutions, making them more reticent to the concept of accepting digital art in institutions. Second, museums are established institutions that are difficult to change. Being an offline institution for the most part, they are not always equipped digitally to adopt the novelty of digital art. Therefore, the digital art movement should be initiated by institutional entrepreneurs. According to DiMaggio (1988), institutional entrepreneurs are the stakeholders who have an interest in particular institutional arrangements and who leverage resources to

create new institutions or transform existing ones. In this case, such entrepreneurs are represented by digital artists or marketplace owners of NFT's. As Ostrom (2005) argues, institutional change can come from exogenous factors, such as technological change by online exhibitions, and endogenous factors, such as depletion of a resource over time. Various researchers posit exogenous causes as the main factor in institutional change, mostly due to technological advancements (Ayres, 1944, p.187; Libecap, 1990, p.16). However, technology mainly represents a mean, not an end in itself. Institutional changes and legitimacy processes are made by social individuals and, specifically here, institutional entrepreneurs, with the help of technology.

Legitimacy represents a core aspect of this research, and research by Baumann (2007) shows how this process took place in different sectors of the art world. He argues that legitimacy is achieved by the result of a collective action, whereby the new and unaccepted is rendered valid and accepted. Baumann's general theory of artistic legitimation takes into consideration three key factors: opportunity, resources, and discourse. This study benefits from the explanation of legitimacy since it reveals what was considered by conventional art institutions to justify innovative methodologies.

There is a lack of study on the legitimation of NFT's in the traditional art world, thus it is critical to have a greater knowledge of how digital artists perceive this new digital way of art making and how it might affect the art world. Hence, the research question for this study is:

RQ: How are institutional entrepreneurs using NFT technology as a method to populate existing institutions, such as museums, with digital art?

To answer the research question, data was collected through semi-structured interviews with 17 institutional entrepreneurs, lasting approximately 60 minutes. The structure of the interviews was chosen in this way by having the advantage of giving freedom to the participants. This will help by expressing their thoughts openly and freely while leaving space for additional information as well. Grounded theory represents the discovery of emerging patterns in data and will be used as the research method of choice.

There have been some important steps taken for the legitimation of this concept by traditional institutions, such as museums, institutional entrepreneurs, and entertainment industries, all of which will be discussed below.

2. Theoretical framework

To gain a better understanding of Non-Fungible Tokens, we will begin to discuss the broader context of NFT's, what causes their popularity, and the speculation aspects of NFT's. Scoping more in our area of research, a growing group of artists is using NFT technology as a way to sell their digital art, however without the help of institutions, especially in the beginning. This calls for an institutional change in art museums, from a technological perspective, by including more digital artworks, but also from a social perspective, by helping not only traditional artists, but also digital ones, in receiving exposure and financial compensation. Next, it is important to analyze the two biggest stakeholders: cultural gatekeepers, because of their importance in the art world, by accepting or rejecting forms of art, and institutional entrepreneurs as social actors, such as digital artists, NFT platform owners, or educators because they are the ones that are trying to integrate NFT's in the art world in various ways.

2.1 Financial speculation on NFT's and the dotcom bubble parallel

According to the 2020 NFT yearly report, made by nonfungible.com, NFT transactions had an increase of almost 300%, compared to 2019. Also, Goryunov (2021) stated that the transaction volume in the first quarter of 2021 has risen 131 times year-over-year. When there is such a fast rise, there is likely to appear an economic bubble and, in this case, the NFT bubble can be associated with the dot-com bubble.

NonFungible.com states that the total value of completed sales in the art sector of NFT's in November 2021 was \$1.95 billion, and the number of sales was close to 545.000. Many are quick to associate NFT's with art instantly. It's important to understand that new socio-technological trends emerge continuously, especially in creative sectors, such as the art world, and what causes them vast increases, both in popularity and price.

The digital artist Mike Winkelmann, who broke the record for the most expensive NFT sold, worth \$69 million (Kastrenakes, 2021), said in an interview with The New York Times that we are likely to be in an NFT bubble and some art pieces "will absolutely go to zero". He also shared some similarities, which will also be discussed below, with the Dotcom bubble. However, he believed that digital art in this way is here to stay, as stated by him "When the [internet] bubble burst, it didn't wipe out the internet".

A bubble indicates the status that an object is traded at high volumes at prices that are considerably at variance from intrinsic values (Smith & van Boening, 1993). During a bubble

period with a high propensity to speculate, investors argued for the high end of valuations (Kim, 2020). Around the beginning of the internet, the bubble was fed by market overconfidence, easy capital, and pure speculation. Venture capitalists, wanting to find the next big win, started to invest in any company with a “.com” after its name, without analyzing the companies with a critical eye (Hayes, 2019). For example, Pets.com went public at \$11 per share, reached \$14, but fell under \$0.22 per share. This resulted in losing \$147 million only in the first 9 months of 2000, folding eventually in November 2000 and laying off 300 people. (Torrey, 2022)

This was a period when investors did not know about dotcoms, mainly because they did not have to. They were waiting for the early cash-out once the company made its IPO. At that point, they would just sell their shares and profit (McCullough, 2020). According to Ljungqvist and Wilhelm's (2003) findings, in 1996, first-day returns on IPOs averaged about 17%. In 1999 and 2000, Internet IPOs averaged 89%. Similar effects are seen in the NFT world today. One of the most popular projects right now in this realm is called Bored Ape Yacht Club, which according to Nonfungible.com, over one year, had a total sales growth from \$1.285 to \$2.582.336.396, representing an increase of 200 thousand percent. As compared to the dot-com period, there is a lot of market overconfidence, pure speculation, fear of missing out, and the opportunity of making vast amounts of profit with low or no effort at all. Now, investors are looking at NFT's as assets with enormous growth overnight, forgetting the good intention that those projects have behind them.

The legitimizing process of NFT's is not an easy one to adopt, because of the bubble and the speculation that hinders it, and in effect institutional change. To proceed further, one needs to understand institutional changes, how they emerge, and legitimacy factors. It is important to know about those concepts because they stand at the forefront of evolution in any area of society, in this case, the art world. It gives insights into how and when changes should be considered.

2.2 Institutional change and legitimacy factors in the art world

Non-Fungible Tokens need institutional change to achieve legitimacy in the art world, but institutions are not well equipped to deal with NFT's. In this section we will cover how the art world changed over the years, often when technological advancements are created, such as the appearance of photography (Hertzmann, 2019), the cultural legitimacy, and how it can be achieved by looking at several aspects.

According to Greif and Cambridge University Press (2006, p.30), an institution is a system of norms, ideas, conventions, and organizations that, combined, produce regularity of (social) behavior. An example of such an institution is represented by a traditional museum. However, for an institution to evolve, stay relevant, and be prosperous, it should consider changes. Institutional changes describe the evolution of institutions, which are defined as the norms and expectations that control human interactions and society's evolutionary routes (Coccia, 2018). This change also comes in the form of small modifications over time, rather than a few major adjustments. This process is usually path-dependent, where past decisions constrain future ones, due to the development in education and ideologies, among individuals (North, 1990). Another important factor in the institutional change concept is the legitimacy process.

In his research, Baumann (2007) states that cultural production attains legitimacy as art during periods of high cultural opportunity by mobilizing material or institutional resources and through a discourse that frames cultural production as legitimate art according to one or more preexisting ideologies. By the definition, this theory contains three major aspects: opportunity, resources, and discourse.

First, opportunity space is defined as “the existence of competitors, commercial substitutes, or publics and patrons of new wealth”. Those can be defined as digital artists and marketplace owners. The concept of opportunity was used alongside the rise of Impressionism in France by the advances of paint technology, namely the adoption of portable collapsible tubes, and new ranges of colors. This advancement made it possible to increase the locations where artworks could be made and decreased the need for some existing skills (Baumann, 2007). Consequently, this advancement resulted in an inability of the Royal Academic system to provide work for the growing number of painters. Another technology-driven opportunity was used in the 20th Century when the concept of photography was introduced in the art world. As stated by Hertzmann (2019), among the strategies of legitimizing this medium were organizations of photographic societies or juried art exhibitions, culminating with the first photography exhibition at an American art museum, in 1910. This new medium did not imply that traditional art should be eradicated. Quite the opposite, it gave a revigorated perspective over older art forms and democratized the art space even more. Paint technology and photography can be compared to the advancements made in digital drawing technologies, as in digital artworks, and the increased number of artists who do not require physical drawing skills. A parallel can be drawn here, since traditional museums face financial problems, due to the

COVID-19 pandemic, and they need new forms of art. This allowed digital artists to step forward as a movement independent of museums. They allowed people to be engaged with art, including art dealers, collectors, and curators.

Second, resources, that can take the forms of institutionalized relationships, prestige, status, or network connections, besides financial ones. These characteristics of resources are illustrated by high-status private auction houses such as Sotheby's or Christie's, which started to create a space for NFT's. Indeed, the association of NFT's in such institutions could provide prestige, visibility, and connections with new owners. This association already exists within the art world with plentiful examples (Lau, 2021; Mozée, 2021). Seeing that prestigious private auction houses have successful collaborations with NFT's, traditional institutions might be even more inclined to adopt them.

Lastly, the discourse should be framed in a comprehensible, valid, acceptable, and desirable way, that resonates with the target audience. As an example, jazz was evaluated in a manner that mirrored the criticism of legitimate music (Baumann, 2007). However, jazz enthusiasts described this new genre by its complexity, tradition, quality, and history. In the context of NFT's, much of the discourse is centered around Non-Fungible Tokens are just valueless online photos, which are sold for vast amounts of money. Digital art does not represent a new type of art. A more appropriate way of approach, to enhance the respect and approval of cultural gatekeepers, could be to perceive NFT's as a new form of art, made with different utensils and in a different medium.

2.3 Cultural Gatekeepers

In this section, I will present the social role of gatekeepers in the art world because they represent a key stakeholder in terms of accepting new forms of art. Their expertise should not be overlooked but should also be continuously extended to be up to date on new techniques of presenting artworks.

Cultural gatekeepers have an important word in the matter of legitimacy. Institutional entrepreneurs, who want to make a change inevitably run up against cultural gatekeepers who, with their power, upheld the institutions. However, this presents a problem: NFT artists want legitimacy without the old institutions, but they need them since much of the process of legitimization takes place there when it comes to opportunity, space, resources, and discourse. This next section focuses on gatekeepers' roles, evolution, and importance throughout digital

art, as well as two related concepts that might help in influencing the image of Non-Fungible Tokens in the eyes of power holders.

Cultural gatekeepers, according to Bourdieu (1984), are individuals who mediate between the creation of cultural commodities and the production of consumer preferences. The role that cultural gatekeepers have to undertake was stated by Janssen and Verboord (2015) as a mixture of “political and moral concerns, commercial interests, to ‘purely’ aesthetic motives”. However, as stated by other researchers (Becker, 1982; Peterson, 1976; Wolff, 1981), the behavior of gatekeepers concerning what is going to be displayed in a museum affects the character of the art world, including the artistic creation. The real conflict comes into place when such gatekeepers are losing their legitimacy and power in the eyes of new artists.

With the growing number of developments around digital art, individuals might underestimate the institutional power of official cultural gatekeepers. The research of Janssen and Verboord (2015) states that the past decades observed the rise in popularity of alternative forms of critical discourse, though in less prestigious settings. Moreover, the same article communicates that internet users seem to practice this as well. Instead of relying on institutional gatekeepers for gathering information, they refer to other internet users. Besides weakening the powers that institutional people hold, it also decreases the value and legitimacy of cultural artifacts in society (Verboord, 2013). This rejection can come from processes of individualization (Janssen et al., 2011) and such evolution can affect institutional workers, becoming more dependent on the uncertainties of the market and following audience interests and consumer preferences (Janssen & Verboord, 2015), with the risk of being even more hostile to the idea of accepting new art in their field.

The previous finding of rejection is in line with the research of Gramsci (1995), who named this phenomenon as counterhegemony. This signifies a way that people develop ideas and discourse to challenge dominant assumptions, established patterns of behavior, and the status quo. Such occurrence can be seen in various sectors of life, such as history, media, or music. And it is not exempted from the traditional art world. In our case, counterhegemony starts from digital artists who want to change the status quo of the traditional art world, by presenting their beliefs that digital art should be as valuable as physical art. It is important to understand the motives in cases of inharmonious counterhegemony, and why cultural gatekeepers may have an increased reluctance over accepting digital art. This is also valuable

since it can be observed and studied throughout history to achieve a peaceful legitimacy process.

Alternatively, influence from two important groups might help the legitimization of Non-Fungible Tokens: cultural omnivores and hobbyists. The first group was defined by Peterson (1992) as consumers that have a wider range of cultural tastes and are prepared to transgress established hierarchical cultural genre boundaries. The second, hobbyists, are cultural tastemakers. Their interest and expertise in the cultural sector lend credibility to the events they participate in and later report through online outlets (Currid, 2007). An event hosted by a strong hobbyist community would also let the gatekeepers know what art is consumed before its full emergence on the mass market. Having a community with cultural tastes from both the high-end and low-end of the art spectrum and a community of hobbyists that would inform gatekeepers what art is new and interesting for the audiences, would lead to gatekeepers having a better perspective on NFT's artworks. Moreover, by transforming hobbyists, which now can be perceived as amateurs, into professionals, the legitimation process would take place automatically. This would be the case since the industry i.e., cultural gatekeepers, needs to perceive those individuals as professional workers to trust their vision and proposals.

2.4 Changes by institutional entrepreneurs

With the implementation of photography as a legitimate art technique, the changes started with the artists. This is the case for digital artists as well. From the beginning of the digital art to present advancements that include the implementation of NFT's, the developments consist of both technological, and social change. Research from Aluma-Baigent (2021) gave important insights regarding how, throughout the ages, digital art was created, and who helped the legitimization of this domain, culminating to the point of NFT's. According to Aluma-Baigent, one of the first individuals who pioneered digital art was Frieder Nake, in 1965 by using the available technological features, such as algorithms to plot a series of shapes that would resemble a work of art, stating that computers own an artistic logic. The birth of this new method helped in bridging the gap between arts and computer science, two domains that were thought to be in complete antithesis. A year later, a social advancement was made through Experiments in Art and Technology (EAT), which was founded by two engineers (Billy Klüver and Fred Walkhauer) with the help of two artists (Robert Rauschenberg and Robert Whitman). The purpose was a one-to-one collaboration for projects within Europe, the United States, Canada, Japan, and South America. The founders would attempt to match engineers with artists

who had similar knowledge in their fields to create successful collaborations between people globally. Initiatives like E.A.T. also helped in shifting the perception of artists being solitary, misunderstood, or self-centered, into creating a collaborative worldwide network. This marked the beginning of digital art, and it didn't stop there, continuing with changes in both technological and social aspects of the art world.

2.4.1 Technological changes

From research by Schneider (2021), the company Monegraph, in 2014, was the first start-up to give artists the needed tools to monetize their digital art via blockchain. With the growing popularity of NFT's in the last year, they have become an important player in this sector, collaborating with important institutions such as Christie's, Sotheby's, and Phillips. Monegraph duties include providing support for the artists and associated galleries in registering their copyrights and managing their rights on the blockchain (Trautman, 2021). Such a start-up was essential for artists who were looking to innovate their artworks through digitalization, with the benefits of the blockchain system, without having to study it in depth. Other artists such as Slime Sunday, Maddogjones, or Pak are creating works within different niches or taking advantage of digital features such as adding sounds to their art or creating animated sloops, similar to GIFs to create variety within this realm of art and helping in evolving art past the traditional idea of static painting.

Digital arts and NFT's gathered interest from investors as well. Gary Vaynerchuck sold his doodles called "VeeFriends" for \$1.2 million at Christie's auction, being a part of the collection "Post-War to Present". Besides their hedonic meaning, those NFT's also have a utilitarian value, by giving the owners access to his annual business event "VeeCon" (de León, 2021). Another example of investors interested in this field is Mark Cuban, the owner of the Dallas Mavericks. Earlier this spring he created an online gallery for artworks called Lazy.com, where he, among other users interested, can showcase and distribute on social media his NFT collection (Chaparro & More, 2021).

2.4.2 Social changes

Today, CryptoArt and NFT's have an impact on communities as well. Artists such as Diana Sinclair are using crypto technology to improve the welfare of her community by building avenues for black artists, gathering investments, and educating the population about their advancements. Other artists such as YoungKevArts and Lizzy Idowu are supporting this

mission as well by putting the black body into futuristic environments, along with materials and patterns that relate to their culture.

More insights from Hoffower (2021) present two entrepreneurs, Mark Mastrandrea and Jeff Cole. They established Open Residency, which is a creative agency that supports brands and artists who want to enter the NFT space. Important names in their team are the 3D artist and 21st century sculptor Gal Yosef and a Disney Animation artist, Alex Alvarado. Having well-known figures present in the artistic world, such as Disney employees or entrepreneurs with a digital art background, gives the NFT realm more credibility.

Creators of digital art are contributing to the NFT's growth in different ways. One of the most well-known digital artists, Beeple represents the perfect example of an unconventional artist. Alongside Huibert-Jan van Roest, the founder of DutchNFTdrops.com, he opened the first NFT exhibition in the Netherlands, in the Dutch Digital Art Museum Almere (*First NFT art exhibition opened in the Netherlands*, 2021).

The examples in this section show that, besides the technological changes that institutional entrepreneurs bring with NFT's, there is a second change as well, the social one. This takes into account the inclusion that institutional entrepreneurs are making by creating artworks that educate about a specific culture and, at the same time, receiving monetary compensation for it, or by creating platforms for digital artists where they can display their work. Social change is present by platforming, either cultures, societies, or individuals and giving them a chance to show their abilities.

To sum up, NFT technology is struggling to create institutional change and achieve legitimacy in the art world. On one hand, because of the extreme financial speculation and sudden popularity, that created a bubble around it, and on the other hand the conservative forces, such as traditional museums and cultural gatekeepers that don't perceive NFT's as art. However, technological advancements were always questioned in the art world at first, remaining of the essence the implication of other stakeholders, such as institutional entrepreneurs. In the NFT sector those stakeholders are creating both technological changes, for example by making tools for artists, but also social changes, by platforming less-known digital artists and giving them a fair chance at receiving exposure and monetary compensation

3. Methods

3.1 Data collection

This paper aims to research the legitimation process of NFT's in the traditional world of art by studying the concept of institutional change and what institutional entrepreneurs are doing to expand the field of NFT's. One of the main drivers for institutional change is represented by technological advancements, and by a decentralized process (Coccia, 2018), which summarizes the world of Non-Fungible Tokens. Overall research on this topic is quite scarce, therefore it is important to create a better understanding of how this legitimation would impact the art world.

I gathered the data through semi-structured interviews, to explore their views on the legitimization of NFT's. A total of 17 semi-structured interviews, which lasted between 40 to 60 minutes were conducted. The interviewees consisted of institutional entrepreneurs such as digital artists or individuals who help in popularizing the NFT world, such as digital curators. I used the semi-structured approach because the process of legitimation can be seen from different angles. This approach helped for an unrestrained atmosphere where the interviewees would state their ideas and views.

Also, I collected the data by using two approaches: multi-sided ethnography and enactive ethnography. By having both perspectives, this paper aims to provide a holistic view of the legitimacy and struggles of digital art.

Using multi-sided ethnography, I divided the interviewees into three categories: (1) curators, who managed to convert themselves from the traditional art world to the digital world, (2) artists that exhibit both digital and physical artworks, and (3) individuals who use NFT's outside the traditional art world. The reason for choosing this categorization is due to the subjectivity and complexity of the art, the artists, and the technology behind NFT's. There are many individuals with different approaches, styles, interpretations, and expertise, so it is important to analyze information that comes from as many positions as possible.

The enactive ethnography was conducted to give my point of view as well. For this, I created 5 NFT art pieces and documented my experience, along with the process of making them, adding them to a marketplace, and promoting them properly to generate sales. By having an enactive approach, I will be involved with the actions and consequences that artists

undertake to create, promote and sell their art. This will result in better comprehended and interpreted data.

After researching multiple marketplaces provided by Fortnow &Terry (2021) in their book, *“The NFT Handbook: How to Create, Sell and Buy Non-Fungible Tokens”*, the most suitable platform for publishing my NFT’s was OpenSea. Despite having a fee attached when the artwork is published, it is the most popular marketplace and is connected with the most used blockchain network, called Ethereum. To increase the exposure of my NFT’s, I showcased them across one digital museum as well, called Lazy.com. In this way, my collection can be seen by viewers from multiple spaces.

A website called NightCafé provided me with AI technology, used to create the base pictures from keywords and phrases. The algorithm for creating the NFT’s was called “Coherent”. This helped me in creating a better picture based on the keywords chosen, rather than the artistic view. To create better-quality pictures, I used the website letsenhance.io. Afterward, the photo was introduced in the program Plotaverse to create moving effects. In the end, I transformed five digital photos into an NFT collection with the name “Artificial Intelligence Takeover”.

To obtain interviewees, I used personal acquaintances, e-mails, involvement in various museums/art gallery showcases, internet research, and referrals from artists. Every participant needed to pass an assessment criterion to filter artists from traders who don’t have sufficient knowledge in this domain.

3.2 Data analysis

The data has been analyzed to provide various points of view regarding why and how NFT’s can be legitimized. The structure of the interview will help in providing a better understanding between Non-Fungible Tokens and legitimacy, along with what directions should be followed by the stakeholders.

The semi-structured interview's main advantage was the freedom that was provided in gathering answers. During the interview, respondents expressed their thoughts freely, which encouraged them to provide more helpful information to the qualitative study. Moreover, the freedom given by such a method helped respondents explain their views clearer throughout the interview.

Seventeen interviews were analyzed, and three core concepts arise Non-Fungible Tokens, traditional institutions, and legitimacy, each with a couple of main factors. Due to privacy factors, the real names of the interviewees won't be used. Instead, they will have different pseudonyms. To explore the legitimacy of a new medium, which is the end goal, one should analyze a couple of aspects. First, what consists of the new medium, how it can help, and how is perceived by the legitimacy power, in this case, traditional institutions, and the audience, which is the public of the art world. Next, an analysis of the current medium needs to be conducted, which is the traditional institutions. It should be examined the stakeholders, such as curators, and the features that would benefit the new medium, such as institutions being seen as quality establishments and helping hand tools. Lastly, based on the knowledge of both the new medium and the accepted one, the investigation moves on to the methods that would enable the new medium to become an accepted one. In this case, the factors are represented by a generational shift and holistic knowledge building.

3.3 Research method

Grounded theory was used as the research method for this study. This theory represents a set of grounded concepts organized around a core category and integrated into hypotheses (Glaser & Holton, 2004). This theory works better with qualitative data and, more specifically, with interviews. The method represents the discovery of emerging patterns in data (Walsh et al., 2015). The subjectivity of semi-structured interviews helped in discovering patterns that led to an answer to the research question at hand. Data gathered from the interviews was analyzed in Atlas.ti. Through open coding, memoing, quoting, and constant comparison method, core categories arise, helping in further discussing relevant themes to the research.

4. Results

4.1 Non-Fungible Tokens

NFT's are a core concept prevalent throughout the interviews, in various ways. As the analysis goes, this concept will be presented in two different spectrums: from speculation to democracy, but before that, it is important to specify that digital artists perceived NFT's as a medium, not only as a technology.

4.1.1 NFT medium

Addressing the enactive ethnography first, my sentiment towards the idea of NFT's as a medium is alike with the interviewees. I have observed that it represents another method of selling digital art, and most of this medium revolves around the general idea of selling, not as much around further exploration. Non-Fungible Tokens are a core concept prevalent throughout the interviews, in various ways. As the analysis goes, I will present this concept in two different spectrums: from speculation to democracy, but before that, it is important to specify that digital artists perceived NFT's as a medium too, not only as a technology. Sophia is an art director, illustrator, and artist that works with both digital and physical art. She believes that:

“NFT's are just an outlet because here you can only sell, much like you can sell your digital art in any other mediums. I don't think it is good to define an art form through the environment in which it happens. The medium is less important than the art itself”.

As stated by her, Non-Fungible Tokens represent another way of selling artworks. There is no such thing as “making art through NFT's”, but “selling art through NFT's”. It represents just another space where artists can promote and sell their artworks.

Likewise, Andrew thinks that the focus of the NFT medium, as of now, is too much around the idea of selling and developing features for selling, and too little on the original idea of the artwork, the owner, and the timestamp. He is a multidisciplinary artist that depicts the overlap between physical and digital art. He presents a common front by stating:

“the focus of NFT's is dedicated towards the act of selling. Right now, platforms push forward the idea that you can set a price and transfer an NFT artwork, instantly. They are creating features that make money when minting is mostly first and foremost about the timestamp that you cannot

delete, and which is associated to some content, time, and owner of an artwork”.

The NFT medium is referred to as the totality of the NFT world. Artists highlighted the fact that, in this medium, there are NFT's which are considered collectibles, and NFT's which are considered art. This created the distinction between speculation and art democracy.

4.1.2 Speculation

Speculation was a part of my enactive ethnography as well. Without the knowledge of other artworks' prices, I had to theorize a price that I believed was an appropriate one. This put me at risk, without any advice on appropriate prices. This speculation is common, especially for upcoming artists, as they don't know how to evaluate their work properly so, without professional help, they either under-evaluate or over-evaluate it.

An important point is to distinguish between NFT art and NFT's as collectibles. Oftentimes, this represents the difference between the speculation world of collectibles and the democracy that helped digital artists to create digital art through NFT's. Lucas is a visual artist from Switzerland, and he stated that

“it's been some confusion because NFT's as collectibles and NFT's as digital art has been put together in the same bucket. Those collectibles do not represent art, as we know it, it is just another category. Sadly, people throw all of this together, especially media and journalism for views, headlines, and stories, which is very confusing for the audience, because they assume it is the same thing”.

Speculation is commonly seen, according to the interviewees, in NFT's as collectibles, or uses of the NFT technology, other than for strictly artistic purposes. Also, this is where a lot of advocates against Non-Fungible Tokens have opposing opinions. Andrew said:

“I've been looking at the anti-NFT communities as well. Most of their hate goes into the collectibles, scams, and different copies of it. To me, this collectible craze is just a distraction, and the technology needs to be explored more by artists. Of course, where there is money involved, some people will do whatever they can to get that money”.

This goes to highlight the idea that there are different types of NFT's, alongside which types are mostly used for speculation. As Andrew stated, most of the opinions against Non-Fungible Tokens are for collectibles. To add to this idea, collectibles are mostly used to scam people, by making them believe the artwork bought is valuable, whereas, in reality, it is not. Since those NFT's represent the majority of the market, the audience believes that every Non-Fungible Token is a scam.

Consequently, there is an explanation for the craze around NFT collectibles. Oliver is a conceptual artist, who exhibited in cities such as Amsterdam, or Berlin. He said that

“it’s a lot of speculation and that’s the interesting thing about humans; they love to collect. They find it satisfying and fun. I know a lot of people who don’t care about art, but about collecting. People wanted to buy an NFT for \$100 and sell it for \$10,000, and that’s the reason they got into it”.

Oliver mentioned why people love to collect NFT’s. It brings people back to the early days of collecting football cards. In his opinion, people tend to collect items and NFT’s represent a digital way to own a collection. It is the same process of browsing, buying, and owning collectibles, only digitally now. Similarly, Mike is a digital artist that creates art in the form of prints, sculptures, and projections. He mentioned that there can be something good taken out of all of this speculation, as we talked about an NFT sale for a vast amount of money.

“It is like a PR stunt in a way. They said let’s throw so much money at this that the whole world will be talking about us. I think it is a good move because, by doing that, they launched the whole NFT awareness. It was a good investment in promoting NFT’s and the underlying infrastructure. It was a disruptive move, the best advertisement ever”.

Mike told me that making headlines by people who bought NFT’s for large sums of money is a good thing because such sales have an impact on people, making them curious about the trend of NFT’s.

To sum up, speculation is a double-edged sword. On one hand, it encourages people to partake in fraudulent NFT projects, but, on the other hand, it serves as a way to introduce people to Non-Fungible Tokens and the possibility of being compensated right. Nonetheless, the free market and the possibility to be rightfully paid means that artists let the audience decide what is art and what is not. This represents a democratic system.

4.1.3 Democracy

Democracy represents a vital part because more and more artists came to life and gained a community of followers. I can agree with this concept from my experience as well, I had the opportunity to publish whatever type of art I wanted, in any marketplace. However, as the interviewees agreed with me too, no one would know about it without promoting it. Hence, no community was created around my art. In such scenarios, artists need to enhance their entrepreneurial skills in promoting their artworks. Moreover, democracy is an important aspect since it allows for institutional change to take place. Not to be mistaken, NFT’s do not represent

the entirety of digital art. Digital art was present long before, but the NFT's helped in "gaining a new public", and it was seen as "a potential in those markets, communities, and hype around it", two participants said.

During the interviews emerged the idea of the free market, a market that is not contingent on the traditional art world. This gives freedom to digital artists and enables them to create what they desire. However, this comes with a trade-off. In the free market of art, everyone, whether a digital artist, or not, can upload digital assets, but the difficult part comes when they want to sell them. Without an established community or an institution that can bring potential buyers, digital art cannot be sold. Marcus, who creates designs through multi-sensory experiences, said that "if you upload your art on a platform, nobody knows it's there, you need to promote it".

Martha is an art strategist, creative consultant, and digital curator. She likes to think that "if it's a good art piece, it can stand on itself, but we live in a market-driven society. I think the marketing around the pieces and being able to talk about your art is equally as important as the art itself". This was in line with other digital artists that have spoken about the importance of "having an audience, whether big or small, that you can talk to and manage their expectations" and "as with any product, nothing works without marketing. If you have a healthy and consistent plan to post, everything goes well". On the other hand, some artists agreed that it can be difficult. Andrew thinks that "it's tiring and distracting from the actual work. Also, we tend to value more when artists put themselves to do their promotion because it feels more genuine, and we appreciate this a lot online". Others felt that it's "a painful process to push their work in front" or they try to do "the bare minimum to pay for my primary needs because, otherwise, it breaks the creativity, pleasure, and energy".

Democracy also paved the way for collectors in taking positions as curators. Chris is an artist based in New York and his work represents a mix of urban art and pop culture. He has seen "a lot of collectors who became valuable because they have a lot of money and artworks, making other people be part of his collection. In the end, those people end up influencing the art scene". In addition, Lucas said that

"I see influential people from the digital world, such as collectors, who are taking this role by selecting people, making shows, or publishing. Some of them are people who live online and know all the arts, floor prices, and projects. There is a lot of expertise from people who are in this world. Even if they don't have a traditional background as a curator, they know their stuff and start to have a role in this".

However, Andrew points out an essential role that curators have. He said that

“we need curators now more than ever because with the internet there is so much stuff. Taste is subjective but it is about sorting, labeling, and promoting to the right audience. In that sense, curators are essential. In my opinion, curation is probably the most important art practice because of the internet”.

Andrew knows that a curation role is of utmost importance, especially in a place where artworks are unfiltered and unorganized, as is the case with digital art.

To conclude, while there are a lot of influential people from the digital world that may be able to fulfill such roles, as Lucas mentioned. However, the curators that have traditional expertise should not be undermined but encouraged to partake in digital art and help filter and label this medium. Moreover, this professional expertise that curators possess is also modeled by traditional institutions, which represents the next core concept.

4.2 Traditional institutions

Promoting to the right audience has been the main function of traditional institutions. Those give the status of legitimacy. Such institutions were discussed and represented by a couple of factors. They have a close connection with institutional curators and were seen as quality establishments and helping hand tools.

4.2.1 Institutional curators

As opposed to the previous theoretical finding of the weakening power that institutional curators start to have (Janssen & Verboord, 2015), the digital artists interviewed stated that curators are an essential factor, especially in the NFT art for various reasons. The first reason is related to their knowledge when working with art. Andrew mentioned that

“curation shines when it can tell a bigger story than the artist can. When it goes much further than an artist can try to express and reveal, for example, by telling more about the context in which art is created or going even further. That’s why they are essential”.

In his view, a curator represents an essential factor because they can better contextualize the art and by having the ability to tell what the meaning behind artworks is. With such skills and knowledge, a curator is irreplaceable. Another important factor related to storytelling regarding knowledge is the ability to have a vision. Usually, the artist has a rough idea for the artwork display, but a great curator has the vision to amplify the placement and the needed resources

The second reason is their ability in filtering for relevant artworks. Especially in the NFT and digital art environment, which is not regulated, artworks can be found and bought everywhere. However, very few people are present to assist in one's purchase or detailing the meaning of the art piece. Hence, there is a need for filtering and curators are the perfect individuals for this. Chris mentioned that "the whole art world is muddled with NFT's because, whilst there are some NFT artworks, a lot of them are just about selling things. So, it does not matter if we talk about collectibles or art pieces, we need a lot of curation in this space". On the same page, Lucas expresses that

"everybody is screaming for more curation because there is just too much stuff, and it is hard to know what is good and what is not. Also, there are too many entities and too many marketplaces. People are calling for more curation because they are overwhelmed".

The last reason that curators have an important role is their ability to create exposure to the right audiences. Nowadays, artists believe that there is an audience for every type of art. They just need to be exposed to the right one. Chris addressed the fact that

"when you exhibit independently, you are showing your art in spaces that won't have your target audience. If I am just showing my art on a platform and no one's vouching for me it gets harder to get to the sellers".

Consequently, Andrew and Lucas believe that "a curator with the right framing, can propose stuff and find a public for it" and "curation helps by putting artworks in the exhibition. It's never only the artist or the artwork alone, it is always the context that is built around it as well". It is indeed hard to get such help in an unregulated environment. Even if this medium gave the liberty for artists to express themselves freely, without help from experts, the market will be so saturated to the point where there will be harder to distinguish between meaningful art and doodles. Due to the nature of traditional museums, with their expertise given by curators, they also have the reputation of presenting to their audience quality artworks.

4.2.2 Quality establishment

The quality establishment is a factor that influenced my enactive ethnography as well. Even if I was able to create and publish artworks, no one could deem my art as qualitative, since there was no professional expertise involved. Furthermore, a quality establishment has benefits such as promotional tools that artists can take advantage of. However, this was not the case, as I had no support from reputable institutions and their benefits, having to rely on my promoting skills.

The quality establishment that traditional institutions hold is mainly based on their cultural ecosystem, historical knowledge, and exclusivity. Martha stated that the cultural ecosystem is:

“the system of the art world and the roles that go into that. You have curators, researchers, administrators, shipment-handling people, technical administrators, especially in the digital art realm, educators, and gallerists. People think those roles should be written off, which is not necessary. When you talk about this system, there are a lot of roads that you need to take into consideration which works together and makes this function”.

This system is often neglected by new digital artists, who did not get recognition from the art world and believe they can be independent and successful without it. William is a conceptual artist who creates art that critically reflects on contemporary networked systems. He mentioned that with the traditional art world mechanism

“you have the artists who make the art, institutions, and dealers who sell it, and collectors who buy it. There is very little communication between the artists and the collectors, but, at the end of the day, it is the collector who makes the whole art market machine work”.

Therefore, he created a collection of NFT's that:

“is intended to renegotiate the rules of engagement in a transactional relation. It's a collection meant to strengthen the relation artist-collector, and to create a long-term investment and commitment between the two”.

The cultural ecosystem was presented at a macro scale too by William, stating that “no single person determines what's good and bad. It's the job of a network of influence and co-dependencies that decides this, such as museums, directors, curators, and collectors”.

Historical knowledge is another important component of a quality establishment. However, the historical knowledge of museums should be complemented by technological adoption to stay relevant and adopt new means of artistic creation, which rarely happens. Jack is specialized in procedural graphic design for screen and print. He mentioned that:

“museums know the history of digital, electronic, and interactive arts. They know the main actors, the scene, the development, and the overall history. They have a big advantage because of that.”

He gave, as an example, ARS Electronica, which is an institution specialized in digital art for 30 years. He thinks that the market is not an indicator of quality, but the institutions are. He mentions:

“I still rely a little bit on the institutions when it comes to quality. I want to trust them, even if we don’t share the same opinions all the time, I believe they have a certain relevance”.

This is in line with the opinion of Martha, by saying that “there is a certain amount of legacy, expertise, and knowledge that comes with these institutions that we need to acknowledge and take into consideration” and with Chris, by “leaning on their expertise and experience”.

When talking about technological advancement, museums are experiencing a shortage in this area. Lucas and Mike stated that “museums are slow by nature, and not always cutting edge”. Mike extended his opinion by stating that “some of them are very busy right now dealing with net-based art, which they need to be caught up with. They still have a hard time dealing with the last 25 years of digital art, since they have not figured that one out yet completely”. However, they mentioned that, sometimes, this is a smart move. The artists believe that museums are behind, but it is healthy because they can stand back, observe the whole movement and make smarter decisions on the long term. By definition, they should not be the first to implement new methods of creating art, but to observe it as a movement and gather the relevant pieces that survived the test of time. Traditional institutions also have the role of helping digital artists in promoting their art pieces.

However, the promotion tool comes with a caveat, as Lucas mentioned:

“While yes, when you are signed with an institution you get help with the promotion, this happens at a later stage in your career as an artist. It takes a long way and a lot of work to get there in the first place. As an emergent artist, no matter your expertise area, you need to know people and people need to know you. First, you need to build a reputation and connections before being able to profit from the promotion that institutions give”.

All those factors help in receiving a legitimate role for institutions. After analyzing the new medium, its role, and the already recognized medium, the next section will present aspects that would help the new medium to become a recognized one.

4.3 Legitimacy

Legitimacy is the bridge between the two mentioned worlds: the one of NFT’s and digital art, and the other of traditional and well-established art. Interviewees mentioned a couple of actions that are already in place to receive the recognition deserved by the art world. Those actions were grouped into two factors: generational shift and holistic knowledge building.

4.3.1 Generational shift

In the enactive ethnography, I was able to detect two ways through which generational shift manifests. The first one is related to personal digital proficiencies, having experienced technology at an early age, and constantly using it throughout my life. This helped in enhancing my digital skills, thus being more efficient than someone who had less digital experience. The second one is about the shift in autonomy. This means that, nowadays, I was able to upload art to the internet anywhere. In the past, if one wanted to publish art, they had to have a social resource network or a museum that could back the work.

The generational shift is a factor that can be seen in several areas of life, including the art world, which has a considerable role in institutional change. For a generational shift to be effective in institutional change, it needs to happen on multiple specters of the medium. In this case, the shift was present among curators, artists, and museums. Andrew mentioned that “change can be good. That means that we get a cycle of newer or younger curators that finally got the attention that they did not have before”. There is this opportunity for upcoming curators, but also, the generational shift among curators can come from a different perspective. The best example to present is Martha, which was an established traditional curator, and has switched, since 2018, to being a digital curator. Such individuals, as stated by multiple interviewees, are crucial for the legitimation of digital and NFT art. They were categorized as the bridge between the traditional and the new medium of art. The shift among artists starts in their early careers, among schools of art. Oliver made the point of “art schools that offer a lot more digital courses, in comparison to physical ones, for the last 10 or 20 years. When you look at the young digital artists they are a majority, compared to young physical artists”. Later in life, this shift shapes, even more, the behavior of digital artists, as Sophia mentioned, in her perspective that

“I have no desire in starting exhibitions. I prefer to post my work on social media and gather my audience through other methods. It’s better like that because I am not forced to interact with people that I do not like”.

Not so long ago, the course of an individual to a successful career as an artist was contingent on curators, institutions, and validation of the art world. Nowadays, with the rise of technology, artists can break this cycle and mold their paths. The last specter in which generational shift can be found is among museums. Jacob is an artist that builds interactive architecture with digital materials. He mentioned that “the generational shift also had an impact on museums. In connection with the pandemic as well, there were a lot of online exhibitions offered by museums”. Among museums, the generational shift has an impact on blurring the

line between the high and low culture of the art displayed in museums, according to Luis. He is a visual artist that creates installations, tapestries, and lenticulars. His opinion is that

“we are going to see a shift where there will be popular NFT’s, such as collectibles, displayed in the form of theme parks, and NFT’s which will be displayed in traditional museums. People could ask what is different between a theme park of NFT’s, compared to a museum of NFT’s. I think this line between high and low culture is going to be very blurry, like a Disney world and the Metropolitan Museum, and everything in between”.

While the generational shift is meant to be progressive and inclusive, there are still audiences that are not familiar with this type of technology, which should not be neglected. Hence, it is important to educate everyone on what is digital art and how can NFT’s help this practice.

4.3.2 Knowledge building

Knowledge building should be spread holistically, meaning, as was the case with the generational shift, over multiple specters of the art medium. The three main areas where knowledge gets built is around institutions, the general public, and the artists’ communities. Liam is an artist and an educator who created a community that promotes collaboration between artists and coders. He explained that:

“the platform in which I publish my art had a booth at Art Basel in Hong Kong and Switzerland, and at the Sonar Festival in Spain, where they did a lot of communication about what’s possible on those digital mediums with the institutions. With such initiative, I feel that the traditional art world is starting to catch up, which helps at showing the history of digital art”.

Additionally, Liam worked with museums and curators in Berlin to “implement digital projects. In the past, sadly, we got confronted with this very strong, conservative force that museums have. I think it is a matter of education”. Martha is another stakeholder in the knowledge building dedicated to institutions. “We have been very keen on actually speaking with a lot of institutions because we bridge both worlds. We have both the knowledge of traditional art world, their needs, and concerns, but we are also knowledgeable about digital art and NFT’s” she mentioned. The knowledge building dedicated to the general public is made through different channels. For example, Liam mentioned that:

“my focus is more towards the general public. I am trying to spread knowledge on this type of art via social media or live streams. I want more people to realize that this medium exists, and it is a type of art that they could make”.

Besides that, he hosts meetups in Berlin for 10 years around this topic where people gather and talk about digital art. Carter is a designer from Switzerland and a teacher at a school of visual arts. He said that “more knowledge will be done once more serious research has been made, and when we can explain simply what this world consists of, without using words that we, ourselves, do not understand”. In line with this statement is also Andrew’s one saying that “back in 2020 I felt like the market was missing the vocabulary needed. Now, I figured it is important to talk to the art world and present this phenomenon to them”. Among the artists’ communities, knowledge was created by actually bringing this community together. Marcus mentioned that

“NFT’s brought together a community of artists. Before this medium, many artists, who may have been in the same spectrum of digital art, would not know each other. Now, they formed a sort of community within social media and started to exchange knowledge between them”.

Those two factors are meant to advance the idea that digital art could be as established as the traditional one, utilizing technological advances through constant evolution, and by gathering and sharing as much knowledge as possible to familiarize the public that was not exposed to this type of art before.

5. Discussion

In hindsight, institutional entrepreneurs are using NFT's as a method to populate existing traditional institutions, such as museums with digital art by educating the art public, informing the institutions about the potential benefits, and spreading awareness through digital galleries.

Educating the art public is made by artists, through platforms such as social media (Twitter and Instagram), live streaming (Twitch), or instant messaging (Discord). Besides education through such platforms, online or physical conferences are held where institutional entrepreneurs are teaching either about Non-Fungible Tokens and their advantages or about digital art in general. Education is also made through institutions in two ways: either by certified online courses, such as Coursera or Udemy or by class courses in Universities of art. Both are made by institutional entrepreneurs. Next, besides digital artists as institutional entrepreneurs, there are also NFT marketplace owners or investors in NFT projects which are informing traditional institutions through exhibition presences, booths with their companies at art shows, talking with traditional curators, or museum managers. Another way of informing institutions about Non-Fungible Tokens is by curators that come from the traditional world of art to the digital one. They represent a key player, possessing knowledge and connections in both sectors. Lastly, institutional entrepreneurs are spreading awareness of the Non-Fungible Tokens phenomenon by exhibiting digital art galleries around the world.

Summarizing the data analysis sections, the research showed a couple of findings regarding museums, digital artists, and curators. First, it was established that museums, due to their nature, are moving at a slower pace than art advances. This is caused by a couple of factors, such as their state budget funding or their archival role in presenting only relevant artworks that pass the test of time. Either way, their first order of business when implementing new types of art is to thoroughly research the medium and see what pieces are relevant and worthy of being archived. Secondly, digital artists have benefited from the NFT's by gaining more popularity and a new audience. They don't see NFT's as digital art intrinsically, but more as a new medium that helps artists, by publishing their art with technological and social benefits added. Lastly, digital artists believe that curators hold an essential role due to their extensive knowledge and filtering abilities. Even more important are the curators that bridge the traditional art world and the digital one, as they hold knowledge in both environments.

5.1 Theoretical implications

This paper intended to shed light on three research areas: technological, the art world, and institutional change, all of which will be discussed below, from a theoretical viewpoint.

One of the most important technological contributions that this study gives is represented by the clear delimitation of NFT's. Namely, we were able to distinguish between two different types of Non-Fungible Tokens: NFT's as art and NFT's as collectibles. It is important to be clear and concise, especially when presenting a new research subject, like Non-Fungible Tokens. When carrying out the analysis, this aspect was left to the reader's discretion. For example, people should be aware that, usually an NFT as a collectible, can have different perks, such as exclusive access to events, while NFT's as art are meant to be treated such as a traditional painting that gets displayed and tells a story. Furthermore, the NFT's as art were presented in all their forms: static pieces, interactive pieces, and physical pieces. This goes to show the diversity of NFT's in the art sector, diminishing the idea that NFT's are just pixels shown on a computer.

We also found out that Non-Fungible Tokens are not digital art intrinsically. This was also due to an unclear explanation of what NFT's represent. NFT technology was characterized as a medium where artists can display their art and be compensated for it while having more control over their art.

An implication that relates to the art world stems from the legitimacy theory of Baumann (2007) where we defined the steps of legitimacy, through opportunity, resource, and discourse, how this theory was applied in the past (i.e., Impressionism), and how this theory would benefit the NFT medium for a more accurate definition of the NFT's potential.

Another implication stems from the concept of counterhegemony (Gramsci, 1995), in relation to institutional change. This helped us to see and understand how new technologies are integrated into traditional institutions. Moreover, it helps to grasp the idea that, in the art world, for example, new methods of creating art are hardly accepted and are thoroughly analyzed by traditional institutions (i.e., photography as a form of art).

5.2 Practical implications

By speaking with digital artists and gathering their opinions on various aspects, readers can understand that the art world does not mean only physical art. This should act as an

encouraging factor for them to take the path of digital art if they desire, without thinking that their career will be futile. The research showed the variety and diversity of markets for digital art and the advancements made in this sector. We looked at NFT's throughout the art sector, but there are other fields where Non-Fungible Tokens are used.

Besides digital artists that use NFT's, other uses have societal influences. Many small athletes, artists, or content creators started commercializing their work and engaging with their communities via Non-Fungible Tokens (Wilson et al., 2021). Redman (2021) stated that the mass media company Fox is starting to broadcast shows directly on the blockchain and create NFT's from shows such as "The Simpsons". Celebrities, including Mila Kunis, Ashton Kutcher, and Chris Rock, are also involved in the NFT world, with a new cartoon series (Alexa, 2021), while the National Basketball Association, in association with Dapper Labs, made over \$230 million at the beginning of March this year by buying and trading digital collectibles of NBA highlights (Young, 2021). Big names in the music industry, such as Steve Aoki, have created an experimental NFT TV show called "Dominion X" and now he's expected to produce another one, in collaboration with Seth Green, the actor from the famous show "The Family Guy" (Nelson, 2021).

5.3 Limitations

As with every research, there were some limitations as well. The most significant one was that data gathering was not conducted on students from art school that want to follow the path of a digital artist. Their insight would have been important since they are the first-hand recipients of the generational shift in the art world. However, such an audience was rather reluctant to share their opinions, due to their perception of not being experienced enough in this environment to provide meaningful perspectives.

Another important limitation is that the interviews took place online, hence making it harder to properly assess non-verbal communication and interpret it with 100% accuracy. Moreover, online data gathering was a limitation in itself, making it hard to gather as many interviewees as we desired via the internet only, rather than approaching artists in person.

Due to the nature of this study, we had been limited to interviewing and researching mainly artists that create digital paintings, with small-scale information about the world of NFT's as collectibles and the impact on their role in the overall perception of NFT's in the world of art.

In close relation to this, another limitation came from the sample used. Namely, the sample size, which might not guarantee complete representativeness. While yes, we were able to gather as many opinions from artists with different visions, styles, and exhibition experiences, more could have been done with a different method such as, as mentioned above, in-person meet-ups.

However, to wrap up, we believe that the findings and the conclusions of this research represent a good starting point for future investigations in the field of digital art and the implementation of NFT's in the traditional art world.

5.4 Future research

Future research is encouraged in the direction of NFT's legitimacy and achieving institutional change due to technological advances that are used in the art world, but also because of the growing number of artists that use such technologies to manifest their creative vision.

An interesting research direction is to equally gather the perspective of traditional institutions, as elaborate as the digital artists, to compare the two standpoints. This way, further knowledge will be developed on the needs and wants of both parties, which could supplement the discussion of digital art and NFT's in traditional institutions.

Reference list

- Adam, G. (2021). *British Museum to sell NFTs of 200 Hokusai works—including The Great Wave*. The Art Newspaper. Retrieved from <https://www.theartnewspaper.com/2021/09/24/british-museum-to-sell-nfts-of-200-hokusai-worksincluding-the-great-wave>
- Alexa, L. (2021). *Mila Kunis' Animated 'Stoner Cats' Series Released as NFTs*. Animation World Network. Retrieved from <https://www.awn.com/news/mila-kunis-animated-stoner-cats-series-released-nfts>
- Aluma-Baigent, A. (2021). *Crypto: Art, Currency, and Capital*. UOttawa. Retrieved from <https://ruor.uottawa.ca/handle/10393/42756>
- Ante, L. (2021). The non-fungible token (NFT) market and its relationship with Bitcoin and Ethereum. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.3861106>
- Ayres, C. E. (1944). *The Theory of Economic Progress*. Amsterdam University Press.
- Baumann, S. (2007). A general theory of artistic legitimation: How art worlds are like social movements. *Poetics*, 35(1), 47–65. <https://doi.org/10.1016/j.poetic.2006.06.001>
- Becker, H. S. (1982). *Art Worlds*. University of California Press.
- Bourdieu, P. (1984). *Distinction: A Social Critique of the Judgement of Taste*. Harvard University Press.
- Chaparro, F., & More, S. (2021). Billionaire Mark Cuban is building a digital art gallery for NFTs. The Block. Retrieved from <https://www.theblockcrypto.com/post/98974/mark-cuban-digital-art-gallery-nft>
- Coccia, M. (2018). An Introduction to the Theories of Institutional Change. *Journal of Economics Library*, 5(4), 337–344. <https://doi.org/10.1453/jel.v5i4.1788>
- Currid, E. (2007). The economics of a good party: Social mechanics and the legitimization of art/culture. *Journal of Economics and Finance*, 31(3), 386–394. <https://doi.org/10.1007/bf02885728>
- de León, R. (2021). Doodles used to create Gary Vaynerchuk NFT collection sell for \$1.2 million in Christie's auction. CNBC. Retrieved from <https://www.cnbc.com/2021/10/01/christies-auctioned-gary-vaynerchuks-nft-art-for-1point2-million.html>
- DiMaggio, P. (1988). Interest and agency in institutional theory. In L. G. Zucker (Ed.), *Research on Institutional Patterns: Environment and Culture* Ballinger Publishing Co.
- First NFT art exhibition opened in the Netherlands. (2021). Omroep Flevoland. Retrieved from <https://www.omroepflevoland.nl/nieuws/261015/eerste-nft-kunsttentoonstelling-in-nederland-geopend>

- Fontaine, P. (2021). Sarah Meyohas Bitchcoin Sale at Phillips. Whitewall. Retrieved from <https://whitewall.art/art/sarah-meyohas-bitchcoin-sale-at-phillips>
- Fortnow, M., & Terry, Q. (2021). *The NFT Handbook: How to Create, Sell and Buy Non-Fungible Tokens* (1st ed.). Wiley. (Fortnow & Terry, 2021)
- Glaser, B. G., & Holton, J. (2004). Remodeling grounded theory. In *Forum qualitative sozialforschung/forum: qualitative social research* (Vol. 5, No. 2).
- Golosova, J., & Romanovs, A. (2018). The Advantages and Disadvantages of the Blockchain Technology. *2018 IEEE 6th Workshop on Advances in Information, Electronic and Electrical Engineering (AIEEE)*. <https://doi.org/10.1109/aiee.2018.8592253>
- Goryunov, M. (2021). *The rapid rise of NFTs*. 3Commas. <https://3commas.io/blog/the-rapid-rise-of-nfts>
- Gramsci, A. (1995). *Antonio Gramsci: Further Selections from the Prison Notebooks*. Lawrence & Wishart.
- Greif, A. (2006). *Institutions and the Path to the Modern Economy: Lessons from Medieval Trade*. Cambridge University Press.
- Hayes, A. (2019). *What Ever Happened to the Dotcom Bubble?* Investopedia. Retrieved from <https://www.investopedia.com/terms/d/dotcom-bubble.asp>
- Hertzmann, A. (2019). *How Photography Became an Art Form*. Medium. <https://medium.com/@aaronhertzmann/how-photography-became-an-art-form-7b74da777c63>
- Hoffower, H. (2021). Meet the millennial crypto-art entrepreneurs backed by Gary Vaynerchuk who want to dominate the ‘wild, wild west’ of the NFT market. Business Insider. Retrieved from <https://www.businessinsider.com/crypto-art-nft-millennial-entrepreneurs-ikonick-disrupting-market-2021-6?international=true&r=US&IR=T>
- Janssen, S., & Verboord, M. (2015). Cultural Mediators and Gatekeepers. *International Encyclopedia of the Social & Behavioral Sciences*, 440–446. <https://doi.org/10.1016/b978-0-08-097086-8.10424-6>
- Janssen, S., Verboord, M., & Kuipers, G. (2011). Comparing cultural classification: high and popular arts in European and U.S. elite newspapers, 1955-2005.
- Kastrenakes, J. (2021). *Beeple sold an NFT for \$69 million*. The Verge. <https://www.theverge.com/2021/3/11/22325054/beeple-christies-nft-sale-cost-everydays-69-million>
- Kim, S. (2020). *Fractional Ownership, Democratization and Bubble Formation - The Impact of Blockchain Enabled Asset Tokenization*. Association for Information Systems Electronic Library (AISeL). Retrieved from https://aisel.aisnet.org/amcis2020/adv_info_systems_research/adv_info_systems_research/19/?utm_source=aisel.aisnet.org%2Famcis2020%2Fadv_info_systems_research

[%2Fadv_info_systems_research%2F19&utm_medium=PDF&utm_campaign=PDFC
overPages](#)

- Lau, Y. (2021). *Sotheby's posted its highest-grossing year ever, boosted by millennials and NFTs*. Fortune. <https://fortune.com/2021/12/16/sothebys-highest-grossing-year-nfts-auctions-millennial-sales/>
- Libecap, G. D. (1990). *Contracting for Property Rights*. Cambridge University Press.
- Ljungqvist, A., & Wilhelm, W. J. (2003). IPO Pricing in the Dot-com Bubble. *The Journal of Finance*, 58(2), 723–752. <https://doi.org/10.1111/1540-6261.00543>
- Market History | NFT sales and trends. (2021). NonFungible.Com. Retrieved from <https://nonfungible.com/market/history/boredapeclub>
- McCullough, B. (2020). *A revealing look at the dot-com bubble of 2000 — and how it shapes our lives today*. Ideas.Ted.Com. Retrieved from <https://ideas.ted.com/an-eye-opening-look-at-the-dot-com-bubble-of-2000-and-how-it-shapes-our-lives-today/>
- Mozée, C. (2021). *Christie's sold \$150 million of NFTs in 2021, with the auction house on track for \$7.1 billion in sales for the year*. Markets Insider. <https://markets.businessinsider.com/news/currencies/christies-nft-sales-total-beeple-auction-crypto-cryptopunks-2021-12>
- Nelson, D. (2021). *Steve Aoki Has Secured Funding to Pilot His NFT TV Show*. CoinDesk. Retrieved from <https://www.coindesk.com/business/2021/08/17/steve-aoki-has-secured-funding-to-pilot-his-nft-tv-show/>
- North, D. C. (1990). *Institutions, Institutional Change and Economic Performance*. Cambridge University Press.
- Ostrom, E. (2005). *Understanding Institutional Diversity*. Amsterdam University Press.
- Peterson, R. A. (1976). *Production of Culture*. SAGE Publications.
- Peterson, R. A. (1992). Understanding audience segmentation: From elite and mass to omnivore and univore. *Poetics*, 21(4), 243–258. [https://doi.org/10.1016/0304-422x\(92\)90008-q](https://doi.org/10.1016/0304-422x(92)90008-q)
- Pinto-Gutiérrez, C., Gaitán, S., Jaramillo, D., & Velasquez, S. (2022). The NFT Hype: What Draws Attention to Non-Fungible Tokens? *Mathematics*, 10(3), 335. <https://doi.org/10.3390/math10030335>
- Redman, J. (2021). *Broadcast Company Fox to Launch NFTs and a Blockchain-Curated Animated Series*. Bitcoin. Retrieved from <https://news.bitcoin.com/broadcast-company-fox-to-launch-nfts-and-a-blockchain-curated-animated-series/>
- Rehman, W., Zainab, H. E., Imran, J., & Bawany, N. Z. (2021). NFTs: Applications and Challenges. *2021 22nd International Arab Conference on Information Technology (ACIT)*. <https://doi.org/10.1109/acit53391.2021.9677260>

- Schneider, T. (2021). *The Duo That Invented the Art World's First Crypto Platform in 2014 Is Back With a Tool to Help Galleries Launch Their Own NFT Marketplaces*. Artnet News. Retrieved from <https://news.artnet.com/art-world/monegraph-nft-ecommerce-platform-2015338>
- Smith, K. W. A. W. R. R., V., & van Boening, M. (1993). *The Robustness of Bubbles and Crashes in Experimental Stock Markets*. ResearchGate. Retrieved from https://www.researchgate.net/publication/230818265_The_Robustness_of_Bubbles_and_Crashes_in_Experimental_Stock_Markets
- Theft and Forgery in the World of Art*. (2020). Printerinks. https://www.printerinks.com/theft-and-forgery-in-the-world-of-art.html?utm_source=awin&utm_medium=affiliate&utm_campaign=306915&awc=1931_1642807309_0b26d4a59cd7e943a945593a0ed4b4c8
- Torrey, J. (2022). *17 Companies That Failed During the Dot-Com Bubble: What Can They Teach Us About the NFT Market?* Start with NFT's. <https://www.startwithnfts.com/posts/17-companies-that-failed-during-the-dot-com-bubble-what-can-they-teach-us-about-nfts/>
- Trautman, L. J. (2021). Virtual Art and Non-fungible Tokens. *SSRN Electronic Journal*, 55. <https://doi.org/10.2139/ssrn.3814087>
- Verboord, M. (2013). The impact of peer-produced criticism on cultural evaluation: A multilevel analysis of discourse employment in online and offline film reviews. *New Media & Society*, 16(6), 921–940. <https://doi.org/10.1177/1461444813495164>
- Walsh, I., Holton, J. A., Bailyn, L., Fernandez, W., Levina, N., & Glaser, B. (2015). What Grounded Theory Is. . .A Critically Reflective Conversation Among Scholars. *Organizational Research Methods*, 18(4), 581–599. <https://doi.org/10.1177/1094428114565028>
- Wang, Q., Li, R., Wang, Q., & Chen, S. (2021). Non-fungible token (NFT): Overview, evaluation, opportunities and challenges. arXiv preprint arXiv:2105.07447.
- Wilson, K. B., Karg, A., & Ghaderi, H. (2021). Prospecting non-fungible tokens in the digital economy: Stakeholders and ecosystem, risk and opportunity. *Business Horizons*. Published. <https://doi.org/10.1016/j.bushor.2021.10.007>
- Wolff, J. (1981). *The Social Production of Art*. Macmillan Publishers.
- Young, J. (2021). *People have spent more than \$230 million buying and trading digital collectibles of NBA highlights*. CNBC. Retrieved from <https://www.cnn.com/2021/02/28/230-million-dollars-spent-on-nba-top-shot.html>