

## THE IMPACT OF NFT TECHNOLOGY ON DIGITAL ART: REVOLUTIONIZING EXHIBITION, PRESERVATION, DISTRIBUTION, COMMUNICATION, AND ARTISTIC POSSIBILITIES

### NFT Teknolojisinin Dijital Sanat Üzerindeki Etkisi: Sergileme, Koruma, Dağıtım, İletişim ve Sanatsal İmkanlar Açısından Bir Devrim Yaratmak

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#### Abstract

The emergence of NFT technology has catalyzed a revolutionary shift in the field of digital art, facilitating the emergence of innovative practices. Artists have gravitated towards creating unique digital assets that are exchanged through blockchain technology, a development that has made intermediaries obsolete. As a transparent system, NFT technology ensures equitable compensation and safeguards intellectual property rights.

This paper investigates the impact of NFT technology on the digital art landscape. Focusing particularly on the effects of exhibition, preservation, distribution, communication, education, and artistic opportunities, this research encompasses interviews with eight digital artists who have direct experience with digital art both before and after the introduction of NFT technology. Through this approach, the study comprehensively examines the subject matter related to NFT technology.

**Keywords:** Digital Art, Digital Artists, Blockchain, NFT, NFT Art

#### Öz

NFT teknolojisi, dijital sanat alanında bir devrim yaratmış olup yeniliklerin ortaya çıkmasına sebep olmuştur. Sanatçılar, Blokchain teknolojisi aracılığıyla takas edilen benzersiz dijital varlıkların yaratılmasına yönelmiş ve bu durum araçların ortadan kalkmasını sağlamıştır. Şeffaf bir sistem olan NFT teknolojisi, adil bir tazminatı garanti etmekte ve fikri mülkiyeti koruma altına almaktadır.

Bu makale, NFT teknolojisinin dijital sanat dünyası üzerindeki etkisini araştırmaktadır. Özellikle sunum, koruma, dağıtım, iletişim, eğitim ve sanatsal olanaklar üzerindeki etkilerine odaklanan bu araştırmada, NFT teknolojisi öncesi ve sonrasında doğrudan dijital sanat deneyimi olan sekiz dijital sanatçıyla röportajlar yapılmıştır. Böylece NFT teknolojisi ile ilgili konunun kapsamlı olarak incelenmesi sağlanmıştır.

**Anahtar Kelimeler:** Dijital Sanat, Dijital Sanatçılar, Blockchain, NFT, NFT Sanat

## Introduction

Since its inception, digital arts have faced challenges in competing with traditional arts. This stems from the inherently abstract nature of digital art, which fails to provide the stability offered by other traditional art media. Digital arts possess unique characteristics, complicating their collection, exhibition, and preservation. Internet-based websites and social media platforms were anticipated to offer solutions for the exhibition, collection, and sale of digital art. However, these platforms faced additional problems. Proving ownership of digital works on websites, especially on social media platforms, has proven difficult. Furthermore, issues such as the use and duplication of digital works without the artist's permission have arisen.

When an artwork is shared on social media platforms, it presents the audience with the opportunity to view it for the first time. However, this feature is often transient, as the copyright and ownership of the work can be revoked, severing the connection between the artwork and its owner (Paul, 2016). A significant challenge on social media platforms is the extensive rights users have over the content they contribute to sharing, raising intriguing questions regarding information creation and preservation (Paul, 2015).

In addition, online digital artworks face the issue of replicability, as artworks produced digitally are inherently capable of being replicated ad infinitum and at negligible cost, similar to other digital products. Although there are some restrictions on the copying of digital products, all these can be easily circumvented by users proficient in technology and cyber pirates (Sundararajan, 2004).

In ancient times, the replication of artworks ignited significant debate over the originality and authentic nature of the work, making the copying process far from straightforward. "The work of art in the age of digital reproduction, however, takes instant copying, without degradation of quality from the original, for granted" (Paul, 2015, p. 44). This situation has a detrimental effect on the authentic quality and value of the digital work.

About memory, the challenges faced by digital works in the online realm can be articulated as follows: artworks may be lost in the event of a website malfunction, and even on social media platforms, they may disappear if the artist loses access to their page (Paul, 2016).

Recently, the emergence of Non-Fungible Token (NFT) technology has been seen as a solution to these challenges. NFTs are a collection of digital information stored on the Blockchain, offering specific rights and characteristics unique to a particular asset (Allen, 2021).

Another way to consider NFTs is to think of an NFT as an asset, such as a piece of digital art, video, or audio, that is associated with the Blockchain. Unlike fungible assets, for example, cryptocurrencies, each NFT is unique and cannot be exchanged or duplicated on a one-to-one basis with another NFT. This uniqueness endows NFTs with value, making them attractive to collectors and investors (Beckman, 2021). It is possible to say that NFTs provide ownership, originality, uniqueness, scarcity, and permanence to a specific item (Fortnow, 2022).

Following the advent of NFT technology, innovative digital platforms have emerged, offering artists the convenience and efficiency to display their works and connect with this technology. These platforms serve as digital art platforms, providing artists with new and innovative opportunities (le Maignan, 2021). Through these platforms, artists can display, sell and preserve their artwork (Almeda and Hartmann, 2023). Furthermore, some of these platforms facilitate the creation of artistic communities, enabling artists to communicate, and share experiences, and advice. This positively influences artists' development by learning from one another. The recent emergence of NFT technology has revolutionized the art world. This research examines the impact of NFT technology on digital art and digital artists, shedding light on the challenges and opportunities faced by digital art and digital artists.

### **Purpose**

This research explores how NFT technology is impacting digital artists. It examines the challenges these artists face in the digital art field and how they cope with them. Furthermore, the study investigates the technology's potential to enhance digital artists' abilities to communicate and engage with their audiences, as well as improve opportunities for learning and development. Additionally, the research aims to explore the creative possibilities offered by the technology, presenting new opportunities for digital artists.

### **Methodology**

This piece of writing uses a qualitative research design, which is based on existing literature, documents, studies, books and articles. The interview method was used to obtain primary source information due to limited information in the literature. In this regard, interviews were conducted with eight artists who had experience with digital art prior to the advent of NFT technology and those who had experienced it after the emergence of NFT technology. They were asked probing questions about their artistic experiences pre-technology era vis a vis post-technology era in order to understand how technology has shaped the development of digital art works.

The interview questions are designed in a manner that seeks to grasp internal perspectives from inside, which can only be accessed from. Specifically, the questions seek to gather insights on how NFT technology might improve the creation process of digital art and how it can help solve problems faced by digital artists in traditional art markets as well as online environments.

Eight digital artists, hailing from different countries including Germany, UK, Spain, Indonesia, Ghana, Chile and the USA were interviewed qualitatively. And finally there was an additional artist whose location remained unknown. These artists are engaged in various genres of digital art including still and moving pixel art, digital sculpture as well as two- and three-dimensional animation music binary and 3-D surrealist art GIF works abstract and geometric moving art.

For the interviews, five video conferences (through discord, google meet and instagram) were held while three email correspondences were sent. In one of the interviews, questions were posed to the artists in real time with responses given immediately. For the other two interviews, questions were sent earlier to allow artists submit them later after they had been worked on. Moreover, every artist was asked additional query for clarification purposes. The language for all the interviews was English.

## **Findings and Interpretation**

With the emergence of NFT technology, digital platforms have unveiled a series of digital marketplaces that offer artists the opportunity to exhibit their works and integrate them with this technology. These platforms serve as digital art markets, providing new opportunities for the advancement of digital art. Artists can utilize decentralized technologies to display, sell, and digitally store their works. Furthermore, some platforms have facilitated the formation of art communities, enabling artists to communicate with one another, share experiences, and engage in mentorship exchanges. This situation positively influences artists' development through mutual learning.

This article aims to investigate whether NFT technology, both before and after its emergence, possesses the potential to resolve the challenges faced by digital artists, incorporating a review of existing literature as well as interviews with eight artists experienced in digital art. Additionally, the capability of these platforms to enhance communication and interaction with the digital art audience, and how they could assist in the learning and development processes of digital artists, has been examined. Finally, a discussion on the new opportunities created by this technology for digital artists has been conducted.

## **The Impact of NFT Technology on Digital Artist**

### **1. Awareness and Adoption of NFT Technology**

Artists' awareness of NFT technology can be attributed to several factors. Firstly, the increasing digitization of art has created a conducive environment for exploring new techniques. Furthermore, the growing discourse on blockchain technology and its potential applications has sparked interest among artists seeking innovative ways to monetize their creativity and engage with their audiences. The awareness of NFT technology among artists can be linked to these factors. The digitization trend in art has facilitated the exploration of new techniques. Additionally, the expanding discussions around blockchain technology and its potential applications have attracted artists interested in showcasing their creativity and earning revenue through innovative means. For instance, in Interview 1, the Indonesian artist Rubahitam was introduced to NFT technology and directed to the SuperRare platform through a friend. Similarly, the American artist McAfee became acquainted with this technology (Interview 1; Interview 7).

Artist Hexeosis became familiar with NFT technology through early interactions with artist XCOPY, who is one of today's most significant and popular NFT artists (Interview

8). Furthermore, some NFT platforms, such as Makersplace, invited artists to publish their works on the platform at its inception. During this process, artists were informed about the technology and the features of the platform. This was the case for Spanish artist Javier Arrés and British artist Impact (Interview 2; Interview 5).

Additionally, some digital artists discovered NFT technology through various social media platforms and digital platforms. This applies to the Ghanaian artist Afroscope, the Chilean artist Zuchhold, and the German artist Everftish (Interview 3; Interview 4; Interview 6).

## **2. Solutions to Challenges Faced by Digital Artists in the Traditional and Online Art Markets**

### **2.1. Exhibition**

From a presentation perspective, digital artists have encountered various challenges in traditional exhibitions. Displaying digital artworks in a digital format at these exhibitions has been quite difficult. Furthermore, this exhibition process has been costly, increasing the expenses of displaying the artworks (Paul, 2016). With the use of NFTs, digital artists have had the opportunity to exhibit their digital artworks entirely in a digital format, thereby gaining the chance to expand their access and visibility (le Maignan, 2021). Additionally, the integration of NFTs with online platforms has brought a democratic quality to the exhibition process, enabling artists to present their works to a global audience and transcend geographical boundaries (Bsteh, 2021).

All the artists interviewed believe that NFT technology has helped them solve the problems associated with exhibiting digital art. Many also thought that displaying digital art in traditional galleries and markets was nearly impossible, but now they can easily exhibit their works on NFT platforms. Artist Javier Arrés notes that NFT technology has not only aided in exhibiting his works but also made the impossible possible (Interview 5).

In the past, the online replication of digital artworks posed a significant issue for audiences. With the advent of NFT technology, some artists believe that the ease of copying their works has aided in increasing their popularity and reaching a wider audience without any sanctions. However, the original artwork must be tracked and verified through Blockchain technology. Artists generally believe that reaching a broader audience will enhance the value of their artwork. NFT emerges as a technology that reconciles the need of artists to exhibit their digital works online with the need of buyers to secure their ownership through Blockchain technology (Reverberi, 2021).

Other benefits of NFT technology in the field of digital art exhibition have been observed. This technology has significantly increased interest in digital art. The confidence artists have in NFT technology has changed the perception of digital art and contributed to its greater recognition by the art world. This heightened interest has encouraged leading art organizations such as Sotheby's and Christie's, as well as museums and major exhibitions, to adopt NFT technology and support digital art (Interview 3).

Moreover, NFT technology provides artists with the opportunity to experiment with new and creative forms of artistic presentation. Artists can add interactive elements to their digital artworks and create engaging artistic experiences in multimedia (Interview 1).

However, many artists have also noted some downsides, such as intense competition on NFT platforms and the proliferation of low-quality artworks (Interview 8).

## 2.2. Distribution and Sales

NFT technology has transformed traditional distribution models in the art market. Previously, artists often faced barriers such as galleries and intermediaries when attempting to sell their works. Additionally, most independent digital artists encountered difficulties in enforcing copyright laws. The lack of robust mechanisms to protect ownership rights made the sale of digital artworks challenging because anyone could replicate and share these works. While it might be possible for an artist to print and sell digital works, in doing so, the art ceases to be purely digital (Matt Fortnow, 2022).

In the case of online digital art, it was generally viewed as a means to offer services like freelance work or the creation of an online portfolio. However, with the emergence of NFT technology, it has been recognized that digital art possesses intrinsic value and has gained the ability to exist independently of any specific service or need (Almeda and Hartmann, 2023).

Most artists interviewed believe that NFT technology has been instrumental in aiding the sales and distribution processes of digital artworks. By leveraging NFTs, artists can communicate directly with collectors. This eliminates the need for intermediaries and reduces associated costs.

Furthermore, NFT technology provides digital artists with the opportunity to publish their digital artworks, as well as register ownership rights and intellectual property. This allows digital artists to robustly control the rights to their works and prevent replication or theft by others, facilitating the easy sale of digital art pieces (Matt Fortnow, 2022). Additionally, artist Javier Arrés believes that the decentralized structure of blockchain technology enables artists to receive a fair and transparent share of every sales transaction (Interview 5).

Artist Afroscope believes that NFT technology has increased the value of digital art and enabled international galleries and auction houses, such as Sotheby's and Christie's, to transition to digital art (Interview 3). This transition, as previously mentioned, not only contributes to the exhibition of digital art but also its sales and distribution processes, creating an environment where some digital works are sold for millions of dollars.

As a digital artist, Zuchhold notes that in addition to the profits that can be derived from the sale of NFTs, the technology provides artists with exposure and opportunities, facilitating freelance work and commission opportunities (Interview 4).

The NFT art world is perceived as a realm that offers new opportunities for artists to secure financial support for realizing and exploring the fine arts of digital art. This is

achieved by transcending the dependence on knowledge and traditional resources within the art world (Almeda and Hartmann, 2023).

In summary, artists are liberating themselves from financial and logistical issues in the art world through the use of NFT technology. The innovative blockchain technology facilitates instant payments, secure transfers, and absolute transparency (Delaplaine, 2021).

However, it is necessary to note that the intense competition in NFT markets can impact the presentation of digital artworks and the interest of digital art audiences. This, in turn, affects sales and distribution processes, because if the audience does not recognize or sufficiently see the artwork, it may not be sold (Interview 7).

### **2.3. Preservation**

The preservation of digital artworks has historically presented significant challenges due to the inherently ephemeral nature of the mediums involved. However, NFTs offer a robust solution by securing the ownership and authenticity of digital art on the blockchain. This decentralized technology complicates, and even renders impossible, the loss of digital artworks stored across various network contracts.

NFTs represent a mixture of digital assets, including artworks, and contain unique identifiers, creator information, artwork details, and publication dates. While this information is stored on the blockchain, the actual assets, such as images or videos, are preserved in data storage spaces (Guidi and Michienzi, 2023).

Many NFT platforms utilize the IPFS protocol, which is decentralized in nature. Thus, instead of relying on a single central server for file storage, distribution is carried out across numerous devices participating in the network (IPFS, 2023).

Many artists believe that platforms built on NFT technology contribute to the preservation of digital art. However, some artists approach the capabilities of this technology with skepticism and are uncomfortable with the idea of only storing artwork information on the blockchain. These artists point out that not all platforms rely on decentralized technologies, with some using centralized servers. Based on this, they believe NFT technology does not provide a satisfactory solution for the preservation of digital art.

For instance, Artist Zuchhold suggests that a method needs to be found to store not just the information about the artwork but the artwork itself on the blockchain. Although he acknowledges that this seems challenging in terms of cost and energy at present, he emphasizes the need to find a way to make this possible in the future (Interview 4).

### **3. Enhancing Communication and Interaction with Digital Art Audiences**

It is observed that NFT technology has a significant impact on improving and strengthening the communication between artists and their audiences. It has brought about positive changes in the ways artists interact with their audiences, in building their brands, and in reinforcing their recognizability.

Most interviews with artists indicate a positive impact of NFT technology on their communication with audiences. In an interview with the artist Impact, the artist noted that while they previously communicated with their audience through social media platforms, NFT technology has lent a more authentic quality to the art pieces shared. Additionally, this technology has also aided in protecting the artist's rights, as works owned as NFTs cannot be replicated by others. Even if a copy is downloaded and shared, the fact remains unchanged that the original work is the one initially published and associated with NFT technology (Interview 2).

Furthermore, artist Zuchhold describes how the use of NFT technology has enhanced communication with the audience. This technology has enabled the artist to interact with a broader community of artists, strengthening communication and the sense of connection. This has made the art journey feel less isolated and more enjoyable (Interview 4).

For artist Javier Arrés, it is believed that NFT technology has contributed to enhancing communication with audiences and has been instrumental in branding and reinforcing recognizability. Additionally, with strengthened communication skills, the artist has succeeded in attracting more followers and art collectors interested in their works (Interview 5).

On the other hand, artist Everftish considers NFT technology helpful in enhancing communication with audiences and increasing the number of followers. However, they also emphasize the importance of other social media platforms like Twitter for promoting their works, as they see these platforms as the main medium for showcasing their projects (Interview 6).

In the examples of Artist McAfee and Artist Hexeosis, it is observed that they were able to establish positive communication through their own websites and traditional social media platforms, noting that NFT technology did not have any additional effect on their communication (Interview 7; Interview 8). This situation demonstrates that the impact of NFT technology on artists can vary from one artist to another and may not be equally effective for all artists.

However, in a general sense, it can be said that NFT technology positively affects the communication between artists and their audiences. NFT technology has added a layer of authenticity to artworks, protected artists' rights, and aided in building their brands and solidifying their recognition. It has also enhanced communication and strengthened the sense of connection by providing the opportunity for interaction with a broader community of artists and art enthusiasts. Yet, the impact of NFT technology on artists varies depending on factors such as their previous methods of communication, the type of art they produce, and their backgrounds.

Furthermore, NFT technology plays a significant role in improving public communication for artists by offering access to a global community of potential supporters and collaborators. The ability to distribute and publish works without the need for galleries and publishing houses not only benefits the artist but also improves communication with collectors of digital artworks. This situation enhances communication between artists and art fans (Almeda and Hartmann, 2023).



#### **4. Facilitating Learning and Growth for Digital Artists**

Beyond the core functions of exhibiting, preserving, and distributing digital artworks, NFT technology offers artists new and exciting opportunities. Artists now have the privilege to form partnerships with reputable institutions and participate in exclusive exhibitions. Additionally, it provides various opportunities, such as winning prestigious awards and participating in competitions.

NFT technology provides artists the opportunity to interact with a broad audience of investors and enthusiasts interested in digital art. This increases the chances for artists to promote their works and sell them at higher prices. It also offers the chance to communicate and interact with a new and global audience through digital platforms.

For instance, Artist Rubahitam has mentioned that publishing his works as NFTs led him to collaborate with global brands and place his works in prestigious exhibitions previously inaccessible to him (Interview 1). On the other hand, Artist Impact has confirmed that NFT technology has brought in millions of dollars through digital artworks and has created innovative ways to produce and display their works (Interview 2). Such opportunities were not available before the emergence of NFT technology.

Additionally, Artist Afroscope has expressed similar views, stating that NFT technology has enabled him to exhibit his works in galleries he could not access in an environment that was not supportive of art (Interview 3). Artist Zuchhold has mentioned that participation in NFT technology has provided him with opportunities for independent work and gaining new clients, as well as the chance to display his works in local and international art exhibitions and utilize innovative exhibition methods (Interview 4).

Artist Javier Arrés's exhibition of works on NFT platforms has led to their appearance on the covers of international newspapers and the winning of prestigious awards (Interview 5). Artist Everftish's display of his works on NFT platforms resulted in winning the BEN Award for Best CryptoArt at the B3 Biennial in Frankfurt (Interview 6). On the other hand, Artists McAfee and Hexeosis have observed that NFT technology did not bring about a major change, but it did allow them to earn a good income and gain a degree of independence as digital artists (Interview 7; Interview 8).

In summary, NFT technology transcends being merely a tool for exhibiting, preserving, and distributing digital artworks. It also provides artists with new and exciting opportunities to elevate their art, increasing their chances of success and recognition. Additionally, it encompasses effects such as collaborating with international brands, participating in prestigious exhibitions, winning respected awards, and communicating with a new, global audience.

## Conclusions

The results of this research indicate that NFT technology has truly revolutionized the world of digital art. This technology allows artists to create verifiable and tradable digital art assets via blockchain technology, thus providing them with new opportunities in terms of exposure, distribution and communication.

NFT technology has been recognized for its role, in cutting out middlemen and revolutionizing the buying and selling of art making the process more efficient and transparent. Moreover NFTs are praised for safeguarding artists intellectual property rights and ensuring they receive rewards from their creations.

Interviews with artists have revealed that NFT technology positively impacts artists by enabling communication, with their audiences and art enthusiasts. Artists now have the opportunity to build communities and engage with fans and buyers in ways that were previously unimaginable.

NFT technology has also aided in the preservation process of digital art. While the information about the artwork is stored on the blockchain, the artwork itself is protected across platforms through various methods. This situation has led to some reservations among artists regarding the need for stronger techniques to protect the artwork itself.

NFT communities have played a crucial role in providing support to artists in terms of mutual assistance, knowledge and information exchange, as well as facilitating learning and development. Going beyond these aspects, NFT technology has opened up numerous opportunities for digital artists that were previously unattainable. In addition to being able to exhibit their works in prestigious and international galleries and appear on the covers of famous newspapers and magazines, artists have also gained recognition through the awards they have received with the help of technology.

In conclusion, NFT technology has completely transformed the realm of art offering artists a blend of technological advancement and creative expression that has paved the way, for new opportunities.

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