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A New Chapter in Cyberculture; NFTs Paradigm Shift

Mohammad Afkhami* Eirini Daskalaki

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Abstract

Since the bitcoin invention in 2008, blockchain technology has surpassed so numerous innovations that the pioneer networks such as Ethereum are adaptable to host a bunch of decentral information containing pictures, audio, video, domains, Etc., or even a metaverse versatile avatar. The transformation of tangible goods into virtual assets, known as the AR-utility of luxury products, and the intermixture of reality and virtuality organized a worldwide, semi-regulated, and decentralized marketplace for digital goods. Non-fungible tokens (NFTs) are doing a great help to artists worldwide, sharing diverse cultural outlooks by establishing a remote cross-cultural corporation potential and, at the same time, metamorphosizing the intermediary role and ceasing the necessity of a well-known art sale's approval. Meanwhile, the cryptocurrency market has already acquired allocation and interest in the global domain, paying the way for a flourishing enthusiasm among entrepreneurs preoccupied with high-tech start-ups. In this qualitative survey based on participatory observation fieldwork, we shall decipher through self-exploration to investigate the ups and downs of the new cyberculture environment. Empirical encountering diverse Social Network Sites (SNS) and following the Cryptocurrency X(Twitter) trends, we have concluded that social media were the assembly line, producing success stories day and night which empowered a decentral market to surpass 14 billion worth of united states dollars.

Keywords: blockchain, cyberspacen, digital art, non-fungible token, social media.

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Introduction

In a postmodern world, all phenomena and forces are artificial, or, as some might say, part of history." (Antonio Negri, 2004)

We could remember the beeps of a dial-up connection that came out of a black pandora box equipped with various frenzy ports, and the most iconic one was the LAN with its hermionic shape. Reminiscing our childhood memories, we have always wondered about the fast flow of information through our copper telephone wires. ADSL, the next evolutionary step in web-based communication technology, was a mini pandora box with blinking LED lights. Shortly after, wireless was essential to affordable brand-new full touch screen smartphones due to the lack of 3G telecommunication. Facebook was the first social media that we signed up for Passing through dial-up besides VPN or proxy and miserably, though curiously, awaiting the plain white-blue web to load.

ADSL took us to another realm and pushed our perspective to the gates of Cyberspace. We can never forget that the moment we discovered about the Google Earth application, our infinite observation almost used up all the internet traffic, which we subscribed for 2gigabites per month. The experience, however, was worth it. Not just to see your city or neighborhood but also to take a street walk trip in the fifth avenue, NY, then head to central park. The first sweet taste of virtual three dimension with a first-generation 19-inch LCD monitor that was efficient for an economical internet surfer made the METAVERSE concept more palpable for the postmodern media generation globally. A genuine concept that came across with Crypto hype and decentralization esteem.

A new media, the Blockchain, which is a software application with peer-to-peer connection, and at the same time can set every record in the public ledger, is a gigantic step towards Cyberpunks' dreamland. Maybe the Gibson's depiction of Cyberspace concerned with "Flying data" objects coasting above a vast urban plain (Castells & Haraway, 2007) did not work out in the minds of realistic scholars, but soon, it was a genuine idea that influenced millions on social media.

One of the main aspects of the new media, if we would define it in the same path as Martin Lister and his associates, we cannot describe it with stable criteria (Lister et al., 2008). The importance of their brief description of 'New media' above is that they understand media as fully social institutions that are not reducible to their technologies (Ibid). Different terms stand for the 'new media' common concept like 'digital' or 'electronic media,' 'interactive media' and 'computer-mediated communication' (CMC). Although these references

may belong to the early days of minting a new term, 'social network sites (SNS) in 2009 that would have forever changed the path of digital communication, the core notion behind it remains the same, Effortless, instantaneous, and obtainable correspondence in a Web 2.0 (, 1999) environment is admittedly highlighted during the internet evolution.

The internet became widespread among Americans, Europeans, and the whole world in the 1990s. Since then, three web interaction phases have been identified with particular characters: input content, goalkeeper, and output feedback. The role of a traditional audience as a static reader or spectator is reproduced, even though he/she could select any medium through the heavy traffic of the information highway. Web 1.0 is a retronym belonging to the first epoch of the World Wide Web, which began in 1991 and lasted until 2004 (Cormode & Krishnamurthy, 2008). Along with transmitting simultaneous feedback, content creation is an essential factor that divides two eras in internet history. The transformation of Cyberspace into a user-friendly medium-Web2.0-where anybody could set up a personal blog or sign up for a private vis-à-vis public page in social media, without the disturbance of a gatekeeper, made the free flow of information up until now.

However, the digitalized generation's unstoppable aspiration to build a decentralized, trustless [1], peer-to-peer, and data secured Cyberspace took the world wide web's evolution into a next revolutionary chapter highlighted as Web 3.0, a term coined by Ethereum blockchain co-founder (Wood, 2014) Although an innovational term, Web 3.0 usability, and practicability are still questioned. The original manifestation of a World Wide web-based on blockchain technology comes as early as 1993. A movement called cyberpunks with a prodigy trio, despite being anarchist revolts, dreamed of a "Pretty Good Privacy" derived from an admissible paranoia against governmental monitoring assisted by Big Tech companies centralized in Silicon Valley. Leaving the government hanging in Cyberspace, censorship policies and surveillance guidelines were the leading objects of The Anarchist Manifesto established by Timothy May, John Gilmore, and Eric Hughes. A declaration of the independence of Cyberspace was an optimistic promise that did not reveal to netizens [2] as late as 2009, when someone (or most probably a group of programmers) announced the first disposable cryptocurrency, applying cryptography science with an insurgent focus: "to entirely divorce from the traditional monetary systems such as the American dollar" (Magnuson, 2020).

Although the internet's promise of spreading information and knowledge worldwide made the dual specialization paradigm (Ameli, & Hassani, 2012) possible, it took a little time to prove deficient. Shepherd through Big Tech web-based applications, fake news typhoon and fifty

million American Facebook account information leakage in the hands of Donald Trump's 2016 election campaign associated by Cambridge Analytica along with the anti-vaccine movement during covid-19 pandemic proves the inefficiency and corruptibility of a centralized social media. Nonetheless, back in 2012, when X became widespread among journalists, the 140-character limitation for each post accelerated the speed at which news could spread (Thompson & Vogelstein, 2018). This quickening gave rise to fake news and disinformation for political or financial revenue and even biased paranoia against public vaccination.

"Blockchain lies squarely at the intersection of these great leitmotifs of modern society" (Magnuson, 2020). To subvert the Internet mechanism, which is highly bonded onto centralized massive data storage and conditionalizing mutual communication without defining a role for the mediator. Instead, giving every web user free access to peer-to-peer communication with the highest level of security is utopian cyberspace. By contrast, some salient concerns remain unresolved after passing at least a decade of blockchain and cryptocurrency innovations. The 24-hour a-day and seven days a week open market, cryptocurrencies' price fluctuation, billionaire celebrities' investors, out-law hackers, social media influencers, and a disabled governmental surveillance position all led to constant criticism from web surfers, journalists, traditional stock market investors like Warren Buffett and surprisingly a Big Tech company founder as celebrated as Bill Gates.

Having considered these contradictory perspectives about Blockchain technology, the CEO of the biggest SNS announced a rebrand to Meta(verse). It will take the place of Facebook may be due to the harsh complaints against the algorithms of the first and most distinguishable social media; as the Guardian puts it, "that comes as the company faces a series of public relations crises." A transcendental universe that some would hope that with its evolution, we will perhaps experience the Digital Big Bang (Lee et al., 2021). A digital world built over our own, comprising virtual reality headsets and augmented reality envisioned by Mark Zuckerberg, totally redirected cyberspace trends and potential opportunities. Digital artists were the first group to recognize the potential wealth embedded in Metaverse as a non-fungible token, better known as an NFT. A paradigm shift in digital culture has been spotted for those already familiar with the game industry and Metaverse, like POV video gamers (for example, GTA and Red Dead Redemption). It only became palpable when a famous digital artist, Beeple, sold his masterpiece IPEG for 69 million dollars on an online auction paid with cryptocurrency.

Moreover, the first rule of the presence in the Metaverse is having an Avatar, an incarnation in virtual reality. The more infrequent and ornament

your NFT Avatar is, the more its assets value and your digital identity would be. Ethereum is a type of blockchain technology that could revolutionize art history and aesthetics, enabling a new mode that could potentially allow a wider range of young artists to make a living and be recognized.

Method

In this mixed-method research, mainly by employing participant observation, we intend to explain the new paradigm shift in Cyberspace and digital culture caused by Blockchain Technology, which was later fueled by the Metaverse announcement. Of course, a job in a new scope as NFT digital marketing required lots of research, contacting X influencers and other projects for collaboration, and note-taking from certified YouTube channels. So, the cornerstone method of this research is rooted in the participant observation approach, which is also triangulated by data analysis and case studies.

The participant observation technique is critical in uncovering and depicting indigenous meanings that are culturally bound within community forums (Emerson et al., 2001). To specify the New Media concept as resilient as it has proven to be since the medium mass era, mid-20th century up till the present, we first need to review the literature on this contemporary paradigm, and its postmodern merits resembled in digital culture. Our professional experience as an NFT collection project digital marketer (mainly on X and other social media such as Discord and Medium) was employed to draw a comprehensive schema of the new art world's ins and outs and artistic norms outlined in Metaverse versatile Avatars. Also, by applying a critical point of view, the advantages and disfavors of this monetized, and, decentral Cyberspace is reviewed.

A phenomenon carrying a considerable amount of virtual money along with-it thus must be investigated. Whether you desire to surf on high waves of the NFT's hype or be an investigative journalist, there is enough data as legitimate digital shreds of evidence that could be analyzed based on multiplied variables. Despite the availability of the ledger, addresses and news to the public, certain covert data remain anonymous; thus, necessitating the need for careful examination through case studies and deductions to make a rational conclusion. We are utilizing the Statista 2021 NFT report data as we explore our findings.

On the one hand, X celebrities' race of success stories activity and mass media (TV news) coverage of such a bizarre market provided us with necessary samples related to our main hypothesis in which celebrity culture fabricates futile demand to increase their worthless digital asset value. Alternatively, to demonstrate the immense potential of blockchain, quantitative data has been chosen to demystify the excitement and the

strangeness behind an intangible market. As well as the collected samples, some of the most watched YouTube material about NFTs promotion is analyzed in detail to form a broad perspective of the transformations this modern medium has induced within social media users' limits. This imperial investigation employed a common epistemological point of view to decrypt the crypto culture in social media. Undefiled, extensive field research with those related cyber communities based on money and return on investment, gathering on social media platforms, each with complimentary use cases.

Literature Review Digitalization; one giant leap for humankind

"Cyberspace. A consensual hallucination experienced daily by billions of legitimate operators, in every nation, by children being taught mathematical concepts... A graphic representation of data abstracted from the banks of every computer in the human system. Unthinkable complexity. Lines of light ranged in the nonspace of the mind, clusters, and constellations of data. Like city lights, receding..."

- William Gibson, Neuromancer

No matter how complicated or easy to use, a machine must be commanded. The foremost personal computers (PC) appeared in the 1960s. Only trained engineers or researchers in labs could take advantage of a giant data analyzer calculator run by the disk operating system famously known as DOS. Green letters, signs, and symbols on a whole dark screen resemble a panel of light bubbles called cathode-ray tubes (CRTs)was the first concept of computers designed and used by masterminds. It was not until 1984 that a PC became available, not simply due to the graphical user interface (GUI) but also affordable for the educated middle-classes in the western world. A giant leap in digitalization happened when command-line interfaces CLi [3] were substituted with graphical icons. A symbolic and, at the same time, portrayal language, captivating enough to take the place of boring command sentences, originated in the phonetic alphabet, which no one but computer engineers could figure out. A Saussurian classification of two significant dissimilar models of written language mindset (Saussure, 1916) may be a flashback to the ancient language as antique as the Egypt empire symbolic language was all it takes to get every individual engaged with digitalization. To get entertained while working with the most sophisticated machine ever becomes so commonly accessible, set off through direct manipulation of the graphical elements (Levy, 2009). Although the term is restricted only to the two-dimensional realm, it also facilitates three-dimensional aspects.

Information used to be as solid and concrete as a language system. Metaphor, just as it plays a mysterious key role in literature, bridging a hidden tenor through a conventional vehicle, with the primary goal of perceiving a concept, contributed as a facilitator to human-electronic device communication. The multiple abilities of computers are depicted through the use of a desktop iconography, allowing users to interact with elements in the same way they would with an actual workspace desk. The announcement of the Apple Macintosh in 1984, with its allusion to commercial reference to Gorge Orwell's dystopian futuristic novel 1984, changed the digital communication path. In the same manner, though more efficient, the iPhone did in 2007, which took mobile phones into a smartphase dominion. Ever since Apple and Microsoft opened virtual windows to bypass ruled-based programing language, visual symbolic metaphors have played a fundamental part in forming a digital culture while accompanying New Media's journey through its evolution. The standing of any medium will not merely relate to contemporary concerns and their practical necessity but additionally occupies a manifest place in time from which scholars may construct social, scientific, and cultural retrospectives. (Ricardo, 2008)

The New Metrics of Art; Roll over Christie's

Blockchain as a peer-to-peer network soon began its journey into artworks, domain names, virtual land, or even documents; any information would be easily stored, transferred, or even auctioned in an open, crypto currencies-based marketplace. This is all owing to the Ethereum developers' innovatory ideas, establishing such a thing as a smart contract [4]. These code lines are manipulable straightforwardly on *Solidity*, an object-oriented programming language for implementing smart contracts on *the Ethereum* blockchain network.

It all happened when *William Entriken*, *Dieter Shirley*, *Jacob Evans*, *and Nastassia Sachs* proposed the Ethereum Request for Comments YYY (The ERC-721), which led to the bloom of non-fungible token or famously known as NFT. "ERC-721 is the seven hundred and twenty-first proposal in the Ethereum proposal process (EIPs) to standardize how these applications are made and how Ethereum will work. (Most proposals are not accepted) On June 21, 2018, ERC-721 was accepted as "final" status, meaning there is significant support and consensus among people that care about this stuff [5]. The groundbreaking concept of the Art world that was first brought to life by the CryptoKitties project, which is supported by Axiom Zen, was a true paradigm changer. The blockchain environment is a continuously evolving system that runs without interruption, 24 hours a day, 7 days a week, and seeks out any insight that could bring greater

benefit to all. ERC-721 is an established protocol which outlines the construction of non-interchangeable tokens on the Ethereum blockchain. Generally, tokens are interchangeable, with each individual token being equal to any other. Consider them like unique, individualized collectibles. The ERC-721 outlines the minimal requirements for a smart contract to be able to manage, possess, and exchange unique tokens.

Contrasting the interchangeability of digital assets (tokens) with the non-interchangeability can effectively illustrate the idea behind NFTs. According to the Larousse dictionary, 'fungible' refers to items that are consumed when used and can be replaced by items of the same kind, quality, and quantity. It is essential to keep in mind two aspects of this definition: Substitutes that are of the same type. For example, two oneeuro coins dating from 2015. And usage. This is the most significant yet least concrete concept. Within the blockchain infrastructure, \$ETH tokens are interchangeable. Their value will remain the same regardless of the exchange. A Non-Fungible Token cannot be substituted. This token symbolizes a one of a kind asset that stands out with its individual characteristics; consequently it cannot be swapped or replaced by a similar token. Non-Fungible Tokens can be represented as digital artwork. virtual property, or even gaming tools. *NFTs* are a technological medium that allows any digital item to be stored and circulated virtually on a blockchain (Lee et al., 2021). NFTs can be likened to computer files in that the range of types and applications thereof is quite broad. The pie chart in Figure 1 presents a breakdown of the sales of NFTs segments in the first quarter of 2022, based on their popularity and usefulness among crypto holders due to on-chain transactions data.

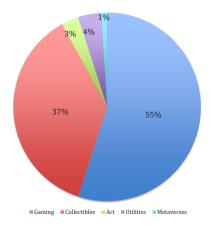


Figure 1. Illustration displays the number of sales of NFTs segments in the initial three months of 2022

Several conclusions could be drawn from the Ethereum public ledger data statistics. One is that Collectibles represents a larger share in the NFTs markets, nearly 80% of the total volume traded. This is a highlighted fact for artists and project managers who are distributing a unique piece of art without considering the demands side of the market. NFT customers are recognized as community members rather than the usual extravagant buyer; a person who belongs to a specific group may seek credibility more than profit. Blockchain Gaming remains a substantial segment in sales and active wallets. Nevertheless, this segment is dominated by Axie Infinity, a Metaverse-based decentral game with its own governance token \$SLP. Table 1 sorts Blockchain games that are taking advantage of NFT's utility.

Table 1. NFT games with the highest player count in the last 30 days as of January 10,2022 source: Statista

Game	Blockchain	User count (last 30 days)
Alien Worlds	WAX, Binance Smart Chain (BSC)	1160000
Axie Infinity	RONIN, Ethereum	677760
Splinterlands	Hive, WAX	604630
Bomb Crypto	Binance Smart Chain (BSC)	561610
Sunflower Farmers	Polygon	476110
Upland	EOS	333570
DeFi Kingdoms	Harmony	230220
MOBOX:NFT Farmer	Binance Smart Chain (BSC)	229130
X World Games	Binance Smart Chain (BSC)	162480
Elfin Kingdom	Binance Smart Chain (BSC)	158300
The Crypto You	Binance Smart Chain (BSC)	137550
Crazy Defense Heroes	Ethereum, Polygon	1125980

Despite being over-promoted, Metaverses only account for a small portion of the entire NFT industry at the present time. Nevertheless, each segment has its own interpretation. Having a high supply of assets for video games is common, however, a low supply is seen in the Metaverse. Art is intended to present different liquidity than the Collectibles segment. Despite this, Collectibles are the highest quality representation of NFT's specific Cyberculture, where the various categories link to various forms of media.

A prodigious network came hand in hand with online Art communities, influential enough to raise a \$13 billion circulating volume

market on diverse Blockchain-inspired networks (for example, Polygon [6], Solona [7], Avalanche [8], Binance Smart Chain [9]). Decentralized applications known as DApps [10] are responsible for a community-based, trustless platform to exchange and even loan digital assets. Figures 2 and 3 manifest the critical role that Blockchain infrastructures play in NFT market growth.

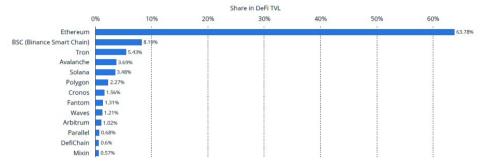


Figure 2. Distribution of total value locked (TVL) in decentralized finance, or DeFi. source: Statista

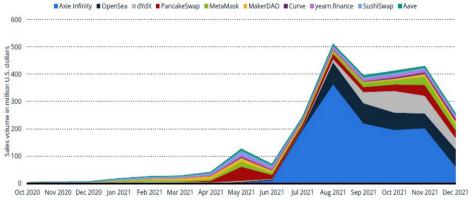


Figure 3. Biggest DeFi applications or dapps based on monthly protocol revenue since launch up to December 2021 (in million U.S. dollars) source: Statista

Despite the many types of NFTs, the most sought-after ones are Metaverse versatile avatar collections projects initiated by CryptoKitties and succeeded by lavishly ambitious projects such as CryptoPunks, Board Ape Yacht Club, and Women Rise (Table 2). The simplicity of virtual cats, the abnormality of coded colored pixels of Punks' avatars, and the sluggish, psychedelic character of bored apes changed the path of cyberculture right at the entrance of a new medium, Metaverse.

Collectible	Replicant	Issue Date	Floor price	Highest Record	Total volume	Total amount
Crypto Kitties		Dec, 2017	1.24\$	745,608\$	88,230,280\$	50,000
Crypto Punks		Jun, 2017	58.020	23.700.000	2.610.000.000	10000
BAYC Board Ape Yacht Club		Apr, 2021	200	3.408.000	770.461.600	10000
Women Rise		Jan, 2022	1000	90.400	10.000.000	10000

Table 2. Variations in cost of NFT marketplace from 2018 to 2022 (in United States Dollar)

Prior to the Metaverse storming trend, the combination of NFTs and Art was not highly valued. It was not until a renowned digital artist residing in New York sold his chaotic and disorganized digital painting entitled "Everydays — The First 5000 Days" for an astounding 69 million dollars. The New York Times referred to it as "NFT Mania" with growing intensity (Figure 4 demonstrates the costliest artworks to have ever been sold at auctions).

To crash whatever records have ever been achieved in an antique sale like Christie's by prompting affluent crypto investors who have never happened to set foot in an Art gallery was the ultimate intention in ambitious minds of blockchain communities. A money-driven Art rather than a medium-driven classical Art, in which the value of a prestigious tableau is dignified by the artist's name, aesthetical criteria, and the history it bears, bubbled up one year after the pandemic at the same time as Bitcoin and Ethereum reached their all-time high.

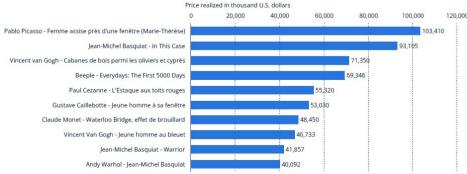


Figure 4. The best artwork sellers in history source: Statista

Luxury auction houses such as Sotheby's and Christie's are the main players in the art world, setting the standards for contemporary art. Before the NFT hype in 2021, investing in art was considered a sound financial decision by affluent social classes and regarded as a dignified practice of elegancy. The international art market is estimated to be worth \$100 billion and is dominated by affluent groups, well-to-do intermediaries, and intellectual luminaries who have the opportunity to benefit from this lucrative industry. Therefore, the unarguable realities of the conventional art industry not wholly advantageous for artists prompted them to take a chance on blockchain possibilities where peer-topeer smart agreements eliminated the voracious intermediary. This provides global access to potential buyers and clarifies the concept of royalty as a strong, lasting copyright ownership due to the public ledger clarity that the Blockchain offers. As expected, along with the novel opportunities Blockchain provides in art, the fast-growing bubble of cryptocurrencies (fungible tokens) played a significant role in this artistic movement paradigm shift. Nevertheless, purchasing a 69 million piece of art as a JPEG file with a digital certificate on the Ethereum network to prove the ownership instead of the artist's signature was only conceivable once blockchain manifestation.

Regardless of all the advantages of a decentral auction house, the fundamental basis is altering the conventional art gatekeepers' role play in the market, upending a few legitimate monopolies. Kenny Schacter, the official manager of Christi's digitalization, claims that: "prices used to be manipulated on the downside by a friendly group to grab artworks as inexpensive as possible, while nowadays you have the opposite. They might keep saying no, but the bids come from those who never even set foot in a gallery." One of the old tricks employed by these close communities is the manipulation of price on public auctions, which results in diving the price up through surreptitious bidding, establishing a fear of missing out (FOMO) situation to allure public interest. A common mechanism that did not vanish through instrumenting blockchain facilities, it was the primary source of inspiration for NFT investors fueled by mass media, social media, and celebrities corporations. However, figure 5 illustrates the opinions classification of art collectors on the most exciting art investment products worldwide.

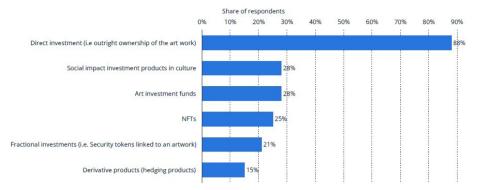


Figure 5. June 2021 a study analyzed the most interesting art investment products to art collectors worldwide. Source: ArtTactic; Deloitte

Discussion

Big Tech Reign; Big Data Sneak

Ever since giant technological companies altered the context of the dominant medium, even surpassing Television and reshaping it as a VOD application available on any 'smart screen,' information is manifested in colored pixels with the supersonic capability of traveling through time and space. This established mobility, portability, and accessibility, which is allegorically based on a capitalistic supply and demand model among clients with whom social network creators have linked. In this Techdriven supply chain evolution, content replaced goods, resulting in the emergence of as mind-blowing as virtual goods. Needless to mention that this medium alteration is also accompanied by labor transmission, from a modern, industrial, and endeavoring work time to an elastically, home-based, and somehow innovatory intelligence manufacturing activities (Negri & Hart, 2000).

On the one hand, social network sites located at the intersection with these fast-forwarding information highways, no matter whether some amateur dude's meme or a high-quality journalistic report broadcasted online by 'media giants,' algorithms designate the popularity of any content which is itself driven by public favorability metrics. Total engagement on social media posts (for example, Likes, comments, shares, and retweets) is the key criterion that enumerates which content got mass attention. Moreover, diverse app-based promotion kits empower any social account to reach as many targeted audiences as he/she would finance for advertisement.

Another side of the network society (VanDijk, 2012), the interactive nature of new media, in other words, the phase of Web2.0 online communication, which is ingrained in self-produced content (, 1999),

provided the means for the Big-Tech companies to amass every bit of information that web surfers reveal about themselves. Whether it is just a simple double tap on a photo (as a conditional interface to like a post on Instagram), following an influencer/celebrity, daily routine google search, or even personal information like birthday and hometown. Even the most trivial activity does count in an artificial intelligence learning machine (Zohouri et al., 2021); its ultimate ambition is to analyze each IP address and categorize them into adaptable marketing classifications. In other words, internet users' personas scheme-big data, regarded as the final product of a virtual assembly line, is being sold economically to whoever is looking for a specific audience.

Privacy is the critical factor left behind while computer-mediated communication evolved through its widespread acceptance. However, early signs of joining resistance among the first well-off tech-nerds internet generation against the state's secret services supervision in cyberspace have been spotted early. Who somehow distrusted the state surveillance and have gotten paranoid that with intelligent machines(computers) taking over security responsibilities, we would not have lived an everyday life, but we would have been getting through a virtual, homogametic Matrix, manipulated with codes and monitored by force. The Cyberpunk movement in the early 1990s, with its iconic manifestation written by Eric Hughes, in which the concept of privacy differentiated from the realm of privacy..." privacy is not secrecy, "... paved the way for the next generation of cyber-whistleblowers (Zohouri. et al., 2020). Of course, software developers who happened to not only undermine the virtual Leviathan hegemony of the state, divulging top secret information as cooperation between former federal officers like Edward Snowden and a journalist cyberpunk partisan Julian Assange, founder of Wikileaks; nevertheless, the banks are also fiercely confronted with the intermediaries involved in any financial transaction.

However, Cyberpunks' digestible concerns about opaque tracking of government that was perceived to be legitimate rather than considered an act of violation against fundamental rights of maintaining a private sphere, nowadays seem to be over-emphasized or at least taken for granted the insidious contribution of Mega corporations. Alphabet (Google), Amazon, Apple, Microsoft, and Meta are the top five well-known mega corporations taking over the American economy. Mark Zuckerberg mentioned during the 2018 hearings in Congress that "the technology industry is an American success story." The threat of BigTech data collectors was taken more seriously by federal executives, and legislators since these oligopolies are worth around 8.4 trillion dollars and, at the

same time, provided with enough liquidity to accelerate or, sadly, bury any novel tech-driven innovations. Even though these giant monopoly-addicted corporations believe their intentions are good; for instance, Meta CEO claims, "Facebook was not created to be a company. It was built to accomplish a social mission" what we have seen so far, especially during Covid19 pandemic and mandatory vaccination programs firmly contradict his assertion. The more open and connected world as a trailblazer concept during the first half of the 2000s proved that good intentions do not necessarily lead to a flourishing outcome. In other words, something has gone completely down the train (Zuboff, 2022).

Social Media as the vehicle for the flourishing NFT market

Misleading information propagated by social media influencers is a critical disadvantage of CMC fueled by the Big-Tech corporation Algorithm designs. These kinds of misinformation in the shape of news, TikTok short videos, or instructional YouTube content, were widespread among friendly communities and dominated the hottest social media trends. News about the usability of bitcoin in credit cards as a certified payment system, and Elon Musk's tweet that Tesla is accepting Bitcoin and Dogecoin for purchasing electric cars, came hand in hand with Mark Zuckerberg rebranding Facebook into Meta. At the same time, many Hollywood celebrities revealed their profligate investment in collectibles like BAYC and Metaverse Real state (Figure 6). The domino bubbled up cryptocurrencies' fluctuating market in less than a year during the COVID-19 quarantine, and the hype instantaneously transferred to the NFT market, recording a 3.7-billion-dollar market cap.

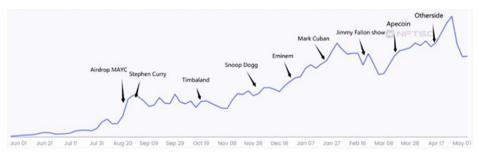


Figure 6. NFT trends on X from June 2022 till March source: NFTGO

Among different social tools for mass broadcasting new technological trends, X is the most favorable one. Crypto X community managed to deploy different tactics to maintain and strengthen hope among early digital asset holders, like laser tag challenge [1] and mass broadcasting

of success stories which triggered more and more early investors to endanger themselves in an unpredictable NFT market.

In addition to these pragmatics, X also used to facilitates digital marketers' jobs by simply giving access to the API [11] of accounts before Elon Musk took the office. In that way, everyone can program their robot that follows specific keywords and, based on those keywords, is capable of tracking the critical nodes of the network, so anyone with the same interest in cryptocurrencies is most probably would be the targeted audience of these fake robotic X profiles that is powered with spamming fraudulent messages to a large number of directories. Most of these are misleading information about how successful their NFT project drop will be, triggering X users to take action due to the previously proven FOMO in early projects like Cryptopunks, BAYC, and WomemRise that made their early owners a tremendous amount of money. Figure 7 analyses art collectibles NFTs during 2021 and 2022.



Figure 7. Total number of sales involving a non-fungible token (NFT) in the art segment source: Statista

The enthusiastic news circulating day and night beside the crypto hype persuaded online activists to jump up the NFT's roller coaster. Although for some minorities whose digital capital grantee their risk and reward in this roulette, many individual investments may be endangered of permanent loss, not to mention the psychological impulses which trigger the cyberspace users' avarice misleadingly. On one-part cyber fans blow the flames of success stories, claiming on their Xtimeline that financial freedom is at hand if they only hold one of those NFTs collections in which, for instance Kenny West owns the rarest piece. Some even showed off dollar bill cash on their private yacht to impress others, so the total value locked in the market rocketed in one year and erupted by the Metaverse announcement.

On the other hand, trusted celebrity entrepreneurs, namely Mark Cuban, started to pop on diverse NFT collections, which were later found as rug pulls promoted by this perceived successful character on X and Instagram. Innovative projects with exemplary roadmaps came after one another, even facilitating charity through community corporations to show their goodwill, even though the value proximity in the NFT market is only based on cyberspace favor. So, by creating hype for upcoming projects, such as applying for a whitelist and mass tweets by a network of NFT social media promoters, they absorbed as much as they could for their red flag venture capital foundation.

Regarding on other innovative SNSs, Different social media have been given a particular role-play in NFT marketing. Discord became widespread among gamers at first because of its performance without cluttering the computer's RAM, characterized as a virtual senate for NFTs' collections, community dialogue, and decision-making. The owner relinquished a preliminary application for a community-based project and handed it over to a decentral autonomous organization DAO, where every proposal gets passed or rejected in favor of the majority.

In conclusion, the vital role that social media takes as a preferable tool to bubble up trends is not undeniable for many artists who struggle to make a difference on social media to sell their NFTs more quickly and costly. Nevertheless, with novel extensions deployed (like space in X) and feedback data analyzing possibilities on social media, merging into a community as dilettante is more easily accessible than before. This access helps those who want a clearer perspective and verify the purpose of a project in a closer conversation.

NFTs' bubble did not come a long way

April 2021 was when the cryptocurrency market cap reached a new high record. Not just because of Bitcoin and early Altcoins (ex., Ethereum) escalating price but also due to the growing high-ech startups and businesses booming worldwide in an ever more connected world. This caused venture capital (VC) finance to invest a bargain in blockchain innovatory ideas. The Art industry, as a consequence, is affected by technological development as it has always been. However, this time it paved the way to link the customer's right to the IP owner, a fair deal for both.

Nevertheless, this is just on paper; in theory, as practical thinkers may say, at the back of the scene, a cyber-social force exists, accompanying social networks based on success stories and alluring them into a playground already organized by the hands of Celebrities, Brands, and

mass media studios accelerated through social network sites. Among these, X played a vital part in putting NFTs and Metaverse trends on to the hottest subject for both VC businesses and crypto-nouveau affluent individual investors eager to attempt new trends without considering the potential risk. The chronological events that blew the fluctuation of cryptocurrency and the NFT market cap are marked in figure 2. The most invigorating event in the blockchain marketplace places-mostly NFT related news- is pined during the last year. The moments of relief for those who kept their faith in the truth of million-dollar digital assets. As it flashed suddenly, it devalued bitterly.

End notes

- [1] I spy with my laser eye: A Twitter phenomenon to make Bitcoin mainstream? https://cointelegraph.com/news/i-spy-with-my-laser-eye-a-twitter-phenomenon-to-make-bitcoin-mainstream
- [2] Internet citizens
- [3] Command-line interfaces
- [4] Smart contracts are simply programs stored on a blockchain that run when predetermined conditions are met. They are typically used to automate the execution of an agreement so that all participants can be immediately certain of the outcome without any intermediary's involvement or time loss. (IBM)
- [5] https://erc721.org/
- [6] In a nutshell, Polygon bills itself as a layer-2 network, meaning it acts as an add-on layer to Ethereum that does not seek to change the original blockchain layer. Like its geometric namesake, Polygon has many sides, shapes, and uses and promises a simpler framework for building interconnected networks.
- [7] Solana uses Sealevel to execute smart contracts that can run in parallel. This system also allows similar smart contracts to leverage the same protocols.
- [8] Launched in 2020 by Ava Labs, Avalanche is a blockchain platform that is smart contract-capable. Avalanche aims to deliver a scalable blockchain solution while maintaining decentralization and security, focusing on lower costs, fast transaction speeds, and eco-friendliness.
- [9] (BSC) is a blockchain network built for running smart contract-based applications. BSC runs in parallel with Binance's native Binance Chain (BC), which allows users to get the best of both worlds: the high transaction capacity of BC and the smart contract functionality of BSC.
- [10] A decentralized application (dApp) is a type of distributed open-source software application that runs on a peer-to-peer (P2P) blockchain network rather than on a single computer. Dapps are visibly similar to other software applications that are supported on a website or mobile device but are P2P supported.
- [11] API stands for Application Programming Interface. In the context of APIs, the word Application refers to any software with a distinct function. An interface can be thought of as a contract of service between two applications. This contract defines how the two communicate using requests and responses.

Ethical considerations

The authors have completely considered ethical issues, including informed consent, plagiarism, data fabrication, misconduct, and/or falsification, double publication and/or redundancy, submission, etc.

Conflicts of interests

The authors declare that there is no conflict of interests.

Data availability

The dataset generated and analyzed during the current study is available from the corresponding author on reasonable request.

References

- Ameli, S.R. & Hassani, H. (2012). "Dual specialization of deviances and abnormalities of virtual space: A comparative study of international policies". Journal of Iranian Cultural Research. 5(1): 1-30. doi: https://doi.org/10.7508/ijcr.2012.17.001.
- Castells, M. & Haraway, D. (2007). "Cyberculture Theorists". London & New York: Routledge.doi: https://doi.org/10.4324/9780203357019.
- Cormode, G. & Krishnamurthy, B. (2008). "Key differences between Web 1.0 and Web 2.0. First Monday". doi: https://doi.org/10.5210/fm.v13i6.2125.
- De Saussure, F. (1916). "Nature of the linguistic sign". Course in general linguistics, 1, 65-70. doi: https://doi.org/10.1515/9783110822144-004.
- Dijk, Jan AGM Van (1999). "The Network Society: Social Aspects of New Media". London: California, New Delhi, Singapore, SAGE Publications Ltd. doi: https://doi.org/10.1177/00027642221092803.
- DiNucci, D. (1999). "Design & new Media: Fragmented future-Web development faces a process of mitosis, mutation, and natural selection". PRINT-NEW YORK-, 53, 32-35. doi: https://doi.org/10.4324/9780080508979.
- Emerson, R.M.; Fretz, R.I. & Shaw, L.L. (2001). "Participant observation and fieldnotes". Handbook of Ethnography. 352-368. SAGE Publications. doi: https://doi.org/10.4135/9781848608337.n24.
- Hardt, M., & Negri, A. (2001). "Empire". Harvard University Press. doi: https://doi.org/10.3917/leph.024.0549.
- Jeffrey Maganis, (April 2022). "Top NFT Influencers, crowd create". https://crowdcreate.us/top-nft-influencers/
- Lee, L.H.; Braud, T.; Zhou, P.; Wang, L.; Xu, D.; Lin, Z., ... & Hui, P. (2021). "All one needs to know about metaverse: A complete survey on technological singularity, virtual ecosystem, and research agenda". arXiv preprint arXiv: 2110.05352. doi: https://doi.org/10.48550/arXiv.2110.05352.
- Levy, D. (2009). "Love and sex with robots: The evolution of human-robot relationships (p. 352)". New York. doi: https://doi.org/10.7551/

mitpress/9780262036689.003.0012.

- Lister, M.; Dovey, J.; Giddings, S.; Grant, I. & Kelly, K. (2008). *New media: A critical introduction*. Routledge. doi: https://doi.org/10.4324/9780203884829
- Magnuson, W. (2020). "Blockchain democracy: technology, law and the rule of the crowd". Cambridge: Cambridge University Press. doi: https://doi.org/10.1017/9781108687294.
- Rodgers, S. & Thorson E. (eds.) (2017). "Digital Advertising. Theory and Research". NewYork: Routledge. doi: https://doi.org/10.4324/9781315623252.
- Sarfi, M., Darvishi, M., Zohouri, M., Nosrati, S. & Zamani, M. (2021). "Google's University? An exploration of academic influence on the tech giant's propaganda". *Journal of Cyberspace Studies*. 5(2): 181-202. doi: 10.22059/JCSS.2021.93901.
- Scott R. (March 11, 2021). "JPG File Sells for \$69 Million, as 'NFT Mania' Gathers Pace". Newyork Times https://www.nytimes.com/2021/03/11/arts/design/nft-auction-christies-beeple.html
- Thompson, N. & Vogelstein, F. (2018). "Inside the Two Years That Shook Facebook—and the World". Wired Magazine.
- Vice HBO Youtube (May 2 2022). "How NFTs are invading the art world", HBO https://www.youtube.com/watch?v=mGlfFjcZFRE.
- Wood, G. (2014). "Ethereum: A secure decentralised generalised transaction ledger". *Ethereum Project Yellow Paper*. 151(2014): 1-32.
- Zohouri, M.; Darvishi, M. & Sarfi, M. (2020). "Slacktivism: A critical evaluation". Journal of Cyberspace Studies. 4(2): 152-173. https://doi.org/10.22059/icss.2020.93911.
- Zohouri, M.; Darvishi, M.; Sarfi, M.; Nosrati, S. & Zamani, M. (2021). "Google's University? An exploration of academic influence on the tech hiant's propaganda". *Journal of Cyberspace Studies.* 5(2): 180-203. https://doi.org/10.22059/jcss.2021.93901.
- Zuboff, S. (2022). "Surveillance capitalism or democracy? The death match of institutional orders and the politics of knowledge in our information civilization". *Organization Theory*. 3(3). doi: https://doi.org/10.1177/26317877221129290.