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Opinion

Faux Semblants: A Critical Outlook on the Commercialization of Digital Art

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Abstract: Heralded by promises for the long-awaited economic empowerment of digital art and the paradigmatic shift of creative production, the art market's fusion with blockchain technologies and the crypto economy has polarized opinions among artists, cultural workers, and economists. Its capricious dynamics and exuberance largely shroud the continuation of the art market's ideology and the reinforcement of the disturbing political vectors of the crypto/blockchain complex. In this paper, I address several interrelated aspects of art tokenization in a compact and comprehensive critical framework that may be useful for a constructive discourse of contemporary digital art. By focusing on the core poetic principles of artmaking—which concern the historically informed autonomy of expression and socially responsible freedom of creative thinking—I identify some of the prospects for advancing digital art towards an ethically coherent and epistemologically relevant expressive stratum. The opening sections Introduction, Markets, and Contrivances outline the art market, its adoption of crypto technologies, and its influences on the production and expressive modes of digital art. Sections Ideologies and Myths describe the ideological and technical issues of the crypto economy, while Shams and Fallouts delve into the conceptual shortcomings and ethical, political, and creative consequences of the standard art tokenization rhetoric. The closing sections Options and Conclusion present the considerations for a productive assessment of blockchain technologies in digital art and summarize some of the alternative approaches for navigating and interfacing with the crypto art world.

Keywords: artificial intelligence; blockchain; crypto art market; crypto economy; digital art

1. Introduction

The contemporary artworld is a conglomerate of changing relations between artists, academia, cultural communities, private and public institutions, and markets, in which altruism and activism coexist, sometimes clash, and occasionally merge with profiteering and exploitation. The contemporary art market is the artworld's most culturally exposed layer, partly due to its high media profile but mainly because of its relatively small but historically recognized role in the global economy [1]. Its selection criteria, operations, and discourses follow a substantially market-driven requirement for the constant flow of novelty, so (re)commodifying artworks as tradeable investment assets takes priority over their cultural values or social importance [2] (pp. 16–18).

Since the early 1960s, digital art has evolved a rich repertoire of creative practices in experimental, exploratory, or speculative uses of computation and other emerging technologies (often in correlation with scientific research), which continuously redefine the notions of traditional and new and challenge the distinctions between artistic process, experience, and product. These practices also underline the rigidity of many conventional notions about art production, distribution, presentation, preservation, and ownership [3], which puts digital art into an ambivalent relationship with the art market. From the 1960s to the end of the 1990s, that relationship was marked by alternating, and sometimes simultaneous, marginalization and exploitation of digital art [4,5]. In part, it reflected the meandering

appeal of digital art's aesthetic or conceptual trajectories and the changing political status of information technologies, but it was decisively driven by the unmarketable medium: the mutability and fungibility of digital data had been difficult to commodify and kept digital art mainly on the market's periphery [6].

That changed in the early 21st century with the new political climate of information technologies such as big-data-based web services, artificial intelligence (AI), and crypto/blockchain, whose rising economic power made them pervasive and influential, improved their cultural identity, and attenuated their critique in the mainstream artworld. The market's current interest in digital art has morphed from its involvement with post-digital art (sometimes also called post-media art, and post-Internet art) throughout the early 2010s and with AI art in the second half of the decade. Post-digital approach centers around treating information technologies as common utilities for appropriating, referencing, and emphasizing the affects of digitally immersed culture and everyday life. AI art has expanded and gained wide recognition with the increasing affordance of multilayered, subsymbolic machine learning architectures and the sociopolitical impact of the AI industry. It has benefited from the support of tech companies such as Google or OpenAI and diversified into a range of practices that emerge out of, and respond to, the phenomenological realms of AI science, technologies, and economies [7,8]. Although artists who take a post-digital approach or work with AI often collapse the mutable digital data into non-digital or non-interactive media to satisfy the requirements for tradeable materiality [9], their methodologies can be fruitful because there are (supposed to be) no media-related taboos in artmaking.

Christie's probing sale of AI art, featuring the French art collective Obvious' *Portrait of Edmond Belamy* (2018), was a successful combination of the work's straightforward (and controversial) technical inventiveness, aesthetic palatability, and conventional format (digital print on canvas) boosted by Christie's marketing [7] (pp. 10–11, 13–14). Sotheby's following debut with AI art auctioned Mario Klingemann's *Memories of Passersby I* (2018), which, although technically and aesthetically superior to *Portrait of Edmond Belamy*, similarly conformed to market demands by including custom-designed material components that were conceptually and formally superfluous. Its limited-edition set was protected by a Bitcoin-based certification of ownership, signifying the art market's recognition that blockchain technologies allow it to expand its portfolio with a range of hitherto unsalable digital artefacts [10]. The art market's venture into crypto-based brokerage was a timely convergence of its interest to attract crypto capital, and the crypto investors' motive to expand trading and promotion of cryptocurrencies into the art scene. It opened with a series of high-profile sales emblematized by Christie's 2021 auction of *Everydays: The First 5000 Days* by graphic designer Mike Winkelmann (Beeple) that closed with a bid for 69.4 million USD [11] (pp. 221–227).

In the following discussion, I explore several interrelated aspects of the crypto art market and the uses of blockchain technologies that pertain to the creative scope and integrity of digital art. Constructive navigation of this problem space requires nuanced and competent critical views, which are still in the minority compared to outright dismissal or biased advocacy. My critique emphasizes the core poetic principles of artmaking, which concern the historically informed autonomy of expression and socially responsible freedom of creative thinking. It is articulated in a compact and comprehensive framework that traces various issues of art tokenization and identifies some of the prospects for advancing digital art towards an ethically coherent and epistemologically relevant expressive stratum. The sections Markets and Contrivances outline the influences that the art market's integration with the crypto economy has wielded on the production and expressive modes of digital art. These influences are closely related to the ideological background of the crypto economy, its notional and technical issues, and their ethical, political, and creative consequences, which are described in sections Ideologies and Myths. The sections Shams and Fallouts explore the conceptual inconsistencies of the standard art tokenization rhetoric and their potentially detrimental effects on experimental digital art. The closing sections, Options

and Conclusion, define the considerations that may be useful for a constructive assessment of blockchain technologies in digital art and summarize the alternative approaches that artists can take to assess the crypto art world and productively address its lures and pitfalls.

2. Markets

The art market has integrated with the crypto economy by adopting the digital instruments for ownership certification and by assimilating market models devised by the crypto art trading platforms, which themselves diversified the monetizing techniques of subscription-based online services such as Flatter, Patreon, OnlyFans, Liberapay, and others. After the introduction of additional Bitcoin layers in 2014, media artist Kevin McCoy and engineer Anil Dash created the first crypto art platform, Monegraph [2] (pp. 16–17), and used it to mint the first non-fungible token (NFT) for McCoy's generative work *Quantum* (2014) [12,13]. Monegraph was soon joined by other Bitcoin-based certificate services, such as Ascribe and Verisart, and artists of various profiles started tokenizing their works. After the implementation of smart contracts in Ethereum version 1.2 in 2015, NFTs became fully feasible and exploitable. Between 2018 and 2021, the NFT market grew thanks to the emergence of trading platforms such as Nifty Gateway, OpenSea, Rarible, and Art Blocks, which facilitated speculative transactions with digital artefacts and added them to the entrepreneurial scope of the crypto economy [14].

Sotheby's and Christie's curated auctions in 2021 featured the "stars of crypto art" such as Don Diablo, Fvckrender, Josie Bellini, Larva Labs, Pak, Raf Grassetti, and Xcopy, together with the established new media and mainstream artists such as Addie Wagenknecht, Casey Reas, Jenny Holzer, Nam June Paik, Ryoji Ikeda, Simon Denny, and Urs Fisher [11] (pp. 17–18). Sotheby's 5.4 million USD sale of the World Wide Web's original source code, provided by its author Sir Tim Berners-Lee in June 2021, was one of the milestones in the art market's merger with the crypto economy. Sotheby titled the auction "This Changed Everything" taking Berners-Lee's endorsement as a symbol of the analogy between the emerging blockchain-powered Web3 [15] and the early Internet (Web 1.0), which crypto/blockchain enthusiasts broadly describe as decentralized, open, democratic, and anonymous in contrast with the centralized surveillance, user data harvesting, and intellectual labor exploitation of the Web 2.0 (also called the semantic web).

Following several other successful NFT sales, the professionalization of crypto art investment absorbed the mechanics of derivative markets, which enabled auction houses, museums and galleries, online exhibitions, collections, and marketplaces to valuate art in abstracted networked processes [16]. In partnership with crypto services or on their own NFT platforms, these institutions now accept cryptocurrencies not just for NFT sales, but also in exchange for physical artwork. Museums and art collections offer various forms of collectibles as hybrid, blockchain-certified digital copies of the original artworks they host [11] (pp. 262–306). The crypto art market's diversification continues through the introduction of new concepts and computational instruments for ownership, monetization, trade, and investment, and the new transactional relationships they facilitate. The intrinsically speculative character of the NFTs due to their dependence on resale chaining and the influx of new investors [17,18] and the high-risk entrepreneurship that drives the crypto art market's superset crypto finance contribute to a volatile environment with the signature boom-and-bust cycles of bubble economies [19]. In this relationship between digital art and crypto/blockchain, as Domenico Quaranta remarked [11] (p. 24), both have a lot to gain, but only art seems to have something to lose.

3. Contrivances

The art market advertises NFT as a technology that empowers artists to monetize their work in new ways and cater to a wider range of collectors [20], and many digital artists have seen it as a convenient route to commercialize their work. However, funneled by the prevailing selection criteria of crypto art collectors and monetization algorithms of NFT trading platforms, their various expressive approaches soon homogenized into

the proliferation of derivative aesthetics akin to zombie formalism [21]. Many successful crypto artists such as Pak, Esteban Salgado, or Michah Dowbak (Mad Dog Jones) use digital tools for a straightforward and mostly automated generation of eye-catching artefacts that feature a quick simulation of originality. Jon McCormack noted that the majority of these works seem neither very original nor interesting [22] (p. 185), and Martin Zeilinger [23] quipped that "for anyone who cares to notice, much of today's NFT world looks like a platform-powered desert of hyper-propertization". The slant toward churning out 4chan-flavored [24] agglomerations of visual puns, symbolic clichés, apathetic cultural comments, and science-fictional escapism is epitomized by the opus of crypto art blockbuster Mike Winkelmann (Beeple) [20].

The NFT gold rush is no less problematic for the more self-conscious and aesthetically sophisticated artists, who proved liable to compromise some of the defining features of their core medium and creative processes to accommodate the demands for scarcity, marketability, and ownership in the crypto economy. Many tailor their production for the trading platforms and limit the online accessibility of their work [25] or venture into brokerage by establishing NFT marketplaces, such as Feral File, which host auction shows based on curatorial models that accommodate works with an aesthetic range broadly appealing to the taste of crypto art investors/collectors. The market's expansion into digital art also prompted mainstream artists, such as Trevor Paglen, Gillian Wearing, Pierre Huyghe, Claudia Larcher, Lucy McRae, Hito Steyerl, and others to assimilate machine learning and other digital techniques into their repertoire, start using blockchain tools, and update their rhetoric accordingly [26]. Abiding by the proven post-digital formula, they approach digital technologies as affective markers of contemporary culture and act chiefly in collaboration with hands-on personnel to produce decorative digitally-derived works in conventional media. This strategy affords them cultural recognition and commercial success but sacrifices the intricate tension between the artwork's conceptual, expressive, or narrative values and the technical logic of its native digital stack [8] (pp. 10–11).

Some artists realized that the default NFT routines for proving ownership and tracking provenance primarily feed virtual contestation assets in the ongoing battles of the crypto economy, and recognized the importance of circumventing them [2]. For instance, in *Mosaic Virus: Bitcoin Per Hour* (2018), Anna Ridler questions the concepts of ownership, obsessions with wealth, and financial speculation by referring to the historical "tulip mania" phenomenon in the crypto economy [27]. In this installation, a GAN trained on Ridler's dataset of roughly 10,000 manually annotated photographs of tulips generates animated images of new tulips inflected by the current Bitcoin exchange rates: lower rates filter for pale and white petals, and higher rates for colored and striped. It links the instability of values projected onto commodified artefacts with the opacity of technologies used to create the work. Ben Bogard's *Zombie Formalist* (2021) uses AI to satirize crypto art commodification and the aesthetic normalization of bland formalism [28]. It features two lightboxes that generate abstract images in the style of color field painters. One uploads images to Twitter and records the number of likes and retweets. The other uses a camera and face detection to produce images when the audience is not looking at it and to record the attention span for each image while the audience beholds it. The software running in each box's system on a chip continuously channels Twitter reactions and viewing time as variables to train classifiers that differentiate "good" (a lot of engagement) from "bad" images (little or no engagement), and filter generated images in favor of "good" ones.

Other artists exploit the programmability of blockchains to repurpose financialization and play with the relativity and transience of digital artworks, their ownability, and commercial life. They use "oracles" [29] to query off-blockchain data and deploy generative smart contracts that dynamically influence the behavior of associated artwork. They leverage the crypto art market's financial flux to explore the options for "tokenizing" values such as solidarity, care, and collectivity. For instance, Rhea Myers' *Is Art* (2014–2015) was a custom smart contract that toggled its own status nomination as art (or not art) with each new transaction [30]; Sarah Friend's *Lifeforms* and *Off* (both 2021) put their buyers

in a multiplayer game based on the prisoner's dilemma [31,32]; and Rafaël Rozendaal's *Endless Nameless* (2021) was programmed to channel 50% of its primary sale proceeds to the non-profit new media art organization Rhizome (at 430,000 USD, it amounted to the largest benefit donation in Rhizome's history) [33]. Other generative smart contract projects include Primavera De Filippi's *Plantoids* (since 2015) [34], terra0's *Flowertokens* (2018) [35], Jonas Lund's *Jonas Lund Token (JLT)* (since 2018) [36], and Harm van den Dorpel's *Mutant Garden* series (since 2019) [37]. In various ways, these works critique the NFTs' limitations as authenticity certificates, the abuse of art for legitimizing and promoting the crypto economy, the blockchain pyramidal schemes, the environmental impact, and various other issues crucial for shaping the creative landscape of digital art and determining the future of the Internet [11] (pp. 95–140).

The nefariousness of the NFT ecosystem [38] informs another important but still underexplored range of critical hacking practices, in which the NFT players' opportunism becomes fair game for interventions that can disrupt the lures of commercialization in a more provocative style of earlier tactical works such as Paolo Cirio, Alessandro Ludovico and ÜBERMORGEN.COM's *Hacking Monopolism Trilogy* (*Google will Eat Itself*, 2005; *Amazon Noir*, 2006; and *Face to Facebook*, 2011) [39], or !Mediengruppe Bitnik's *Random Darknet Shopper* (2014) [40]. For instance, the transactional vulnerabilities and instability of NFTs may be exploited by hijacking and summarily NFT-encrypting large volumes of the existing crypto artworks and then giving them away for free. Ben Grosser's *Tokenize This* (2021) acquires one such mode of resistance by elegantly subverting our hasty adherence to the tokenization logic and speculative impulses [41]. Posing as an online service, *Tokenize This* generates a unique URL with an authentic image in a typical crypto art style (a simple color gradient) superimposed with an alphanumeric cipher resembling a crypto hash, but the URL is unmintable as an NFT because it self-destructs and yields a "404 not found" HTTP status error page when a visitor navigates away from it to perform the necessary minting steps. Perhaps the most astute crypto-mythology debunking crypto artworks are Moxie Marlinspike's decentralized applications (dApps) [42] such as *Autonomous Art*, *First Derivative*, and *At My Whim* (all 2021) because they explicate the banal technical logic and core inconsistencies of NFT backend. For example, *At My Whim* showed that the same NFT can be linked to different digital contents depending on where and how it is presented. By manipulating the NFT hosting web servers to select and transmit images according to the requester's IP address or user agent, *At My Whim* appeared as abstract digital drawings with disparate geometries on OpenSea and Rarible marketplaces, but after purchase, it was displayed in the buyer's crypto wallet as the emoji with Unicode Character U+1F4A9. This dApp fully complies with the NFT technical specifications and can be attached to any other digital artefact, which demonstrates the ultimate uncontrollability of assets that NFTs are purported to secure. A few days after the publication of *At My Whim*, OpenSea reaffirmed that point by removing the NFT without warning or explanation, both from their website and from all of the artist's crypto wallets [43].

4. Ideologies

The relative sparsity of such tactical interventions indicates that the majority of involved artists are focused on navigating, experimenting, and exploiting the NFT landscape for profit, recognition, or institutional support. They largely remain unaware or seem oblivious of the technical problems of the crypto economy, its ideological background, and its ethical, political, and creative consequences, which were identified upon the very introduction of blockchain. Since the mid-1960s, the worldviews in the computer science community have been dominated by a bizarre blending of contradictory doctrines, such as individualism, libertarianism, neoliberal economics, counterculture, and utopianism. Marked by a tendency to conflate sociopolitical with technological problems, this hybrid ideology can be summarized in the three assumptions of technological manifest destiny: 1. Technology is apolitical (value-neutral) and will therefore automatically lead to good outcomes for everyone; 2. New technologies should be deployed as quickly as possi-

ble, even with incomplete knowledge about their functionalities and societal impacts; 3. The past (history) is generally uninteresting and has nothing to teach us about human nature and relations [44]. Shaped by a start-up mentality of predominantly white male entrepreneurs and "brogrammers" obsessed with quick success and tending toward sexism, racism, misogyny, homophobia, or transphobia, the crypto/blockchain complex radicalizes this techno-utopian ideology.

Despite the rhetorical commitment to values that seemingly do not come from the right, crypto-businesses incorporate pivotal right-wing beliefs. Most of the early developers and adopters of Bitcoin and Ether belong to several intersecting communities whose political orientations and economic views range from the Austrian and Chicago schools of economics to the extremism of Federal Reserve conspiracy theories. Crypto communities include movements such as cypherpunks, crypto-anarchists, tech-savvy libertarians, transhumanists, Singularitarians, Extropians, and a wide swath of self-described hackers and open-source software developers [45] (pp. 30, 60). Some of the leading crypto investors, entrepreneurs, and promoters, such as Elon Musk, Peter Thiel, Eric Raymond, Jimmy Wales, Eric Schmidt, Saifedean Ammous, Travis Kalanick, and others, openly adhere to libertarian, objectivist, and other right-wing ideologies [46]. Many celebrate the prophetess of unblushing egoism, Ayn Rand, but conveniently overlook the bleak sociopathy of her dilettante philosophy [47,48]. Their common political perspective comprises ideas that link ecstatic enthusiasm for digitally mediated lifestyles with radical libertarian notions of freedom, social life, and economics.

As it is currently conceptualized and configured by the most prominent actors, the crypto/blockchain complex is not bettering the world but instead adapts to, reproduces, and exacerbates the existing social structure and the operational logic of the present financial system. It largely promotes technological determinism, radical individualism, trust in the power of business, enthusiasm for a deregulated market economy, and disdain for the role of government. The values of this widespread ideological conglomerate fully make sense only within the context of the right-wing political milieu [45,49,50] and we should take into account their appeal, as well as their challenges and shortcomings, in critically assessing the crypto art market.

5. Myths

The introduction of Bitcoin instituted the crypto economy in the immediate aftermath of the 2007/2008 financial crisis that significantly eroded public trust in financial institutions and their undeservedly favorable treatment by most governments. The still reverberating shockwaves of this distrust contribute to enthusing a wide social group of crypto/blockchain adopters. One of the central dogmas of the crypto economy is that the necessary trust in banks and contract agreement intermediaries is the root problem of conventional currencies. As a response, cryptocurrencies aim to disintermediate financial transactions and smart contracts aim to disintermediate agreements by replacing the trust in centralized institutions with trust in distributed blockchain protocols, algorithms, and service platforms. However, the absence of regulatory guardrails and the hackability of the blockchain network infrastructure make cryptocurrencies as susceptible to fiat directives as their non-digital counterparts, so they are not only used for high-risk investments but are also abused for the deregulation of money and price manipulation [51], money laundering, financial fraud, and scams [52,53].

Marlinspike's analysis [43] reiterated and illustrated that the technical tenets of the crypto economy are indeed mythical; they center around the computational mechanics of distributed trust and leaderless consensus, but leave out that clients ultimately cannot participate in those mechanics on an equal footing with the providers. Blockchain networks are not decentralized because many parts of their material resources and technical knowledge are proprietary and rely upon service chains that are centrally controlled or ultimately fall under unilateral control. They have been built upon a traditional server-based architecture of the World Wide Web information system, which inherits the Internet's generic

contradiction between trends to radically distribute control into autonomous locales and trends that focus control into the rigidly defined hierarchies of gatekeeping institutions and bureaucratic governance, for example in Domain Name System (DNS) management [54]. Marlinspike pointed out that when any distributed ecosystem concentrates around a centralized platform for convenience, it becomes the worst of both worlds: control is de facto monopolized but still distributed enough for the platform services to remain quasi-useful [55]. He recognized that the basic problem of blockchain implementation lies in the highly concerted effort and specialized skills necessary for designing and managing the underlying hardware/software systems, which remain beyond the reach or expertise of average users and follow the tendency to serve the interests of hardware/software owners and developers rather than broader goals. This implies that if the crypto investment continues to accelerate within the existing network infrastructure, Web3 will turn into Web 2.0 but with even less security and privacy.

In the crypto art trade, the NFT minting, smart contract deployment, and transactions are handled by centralized, often proprietary, and opaque online platforms. The decision-making processes about the technical, expressive, and tradability norms (traditionally performed by art institutions, critics, and curators) converge into the hands of platform owners and into the crypto wallets of investors who follow economic, social, and political agendas rather than artistic [11] (pp. 172–176, 262–272). Consequently, Decentralized Autonomous Organizations (DAOs)—often celebrated as innovative governance mechanisms and proof of the crypto community's ability to mobilize effectively around common causes and shape a more just and democratic social environment—are less equitable or democratic than they appear because the participants' voting power depends upon their funding power [56]. Most of the DAO funding comes from the speculative economy, whose capitalization origins are even shadier than that of the traditional art market, and whose ideologies starkly oppose the values of the members drawn to the DAOs' enlightening potentials. Recent data also dispute the claim that the crypto art market opens up unprecedented possibilities for women artists, minorities, and artists from underdeveloped countries [11] (pp. 32, 273–294). Contrary to the claims of the so-called "clean" platforms, all NFT trading actions inevitably draw on cloud computation, which increases the environmental damage incurred by producing the traded artwork [57,58].

Behind mythologizing the power of NFTs to disintermediate art trade and ownership, the art market's integration with the crypto economy allows it to grow financially through high-frequency trading and extend curatorial power through blockchain computation [59]. As McCormack remarked, "NFT art masquerades as accessible and democratizing, supposedly seeking to dismantle the power structures that have existed within the traditional art market, yet it adopts the same language and promotes the same desires as the conventions it seeks to disrupt" [22] (p. 186). In this extrapolation of commodifying control, art is being used to bring value onto the blockchain, promote cryptocurrencies, and help divert the conversation from the crypto/blockchain's ideological milieu.

6. Shams

The pragmatic rationale of the crypto art discourse is that blockchain technologies such as NFTs and smart contracts provide digital artists with long-awaited, appropriate, and beneficial medium-specific means for commodifying and selling their work. However, the assertion of the NFTs' requisite suitability to digital art is faulty for several reasons. First, mainstream artists who have used digital media since the 1990s, and post-digital artists since the 2010s, have steadily exemplified successful commodification and marketing of digital artefacts by integrating them with non-digital non-fungible elements. This implies that the marketability of (digital) art depends less on the medium than on the market's willingness to include certain practices in its portfolio.

Second, the NFTs exacerbate the chronic oversaturation of the art market, in which all artists, on average and regardless of the media, face the problem of monetizing their productions in the long run. Thus, artists whose primary or exclusive goals are commercial

become prone to compromise and corruption by competing with the escalating number of other similarly motivated artists. By accelerating trading frequency and market saturation, the crypto regime emphasizes the default ethical dilemma of the creator's priorities: making art or making money. In a broader perspective, this may be regarded as the primary "value" of NFTs. It shifts the focus of appraisal from the artistic process as an intrinsically non-capitalist type of work [60] onto the transaction-centered entrepreneurship, which renders creative production vulnerable to exploitation and regresses the creative ethos of digital art into the notional orbits of physical possession and exclusive ownership. These notions become largely unsuitable or obsolete in modern society, where the elevated power of information, when not propertized and commodified, introduces various inclusive forms of owning and appreciating art through mental experience rather than the physical retention of objects.

Third, and crucially, tokenization injects the industrialist logic of scarcity into the informational domain in direct contradiction to the fluidity and copyability of the digital medium. As David Joselit remarked, "[Marcel] Duchamp used the category of art to liberate materiality from its commodifiable form; the NFTs deploy the category of art to extract private property from freely available information" [61]. The NFTs facilitate the imposition of faux rareness or a fictitious "crypto-aura" onto artefacts whose "aura" should emanate from their poetic, expressive, and relational values. To forge art into a speculative currency of cultural capital [16] (pp. 293, 294), NFTs institute a ghost of property or an imaginary experience of ownership, which should not be confused with "aura" because there is no such thing as an authentic digital copy [22] (p. 186) [62]. This commodification logic conflicts with the key poetic features of digital art, such as accessibility, mutability and interchangeability, and undermines a range of experimental and critical practices that have been emancipating the notion of an artwork from a sacred (or fetishized) material entity toward a relational process of ideational exchange.

In 2016, Zeilinger presciently traced the directions of current trends towards imposing an artificial scarcity on digital art and identified them as worrisome amplifications of long-established efforts to fence-in creative expression as private property. He warned that technologies such as NFTs and smart contracts will primarily serve to financialize creative digital practices as a whole and curtail the critical potential of digital as an inherently dynamic and potentially uncommodifiable medium of artistic expression:

> The shifting of legal and ethical responsibilities to software will not point in the direction of a more open, free, and egalitarian network society but rather towards a society that is more strictly surveilled and controlled and that affords us less creative and critical freedom […]. A self-governing utopia of digital art is not the likely outcome if the identity or authenticity of artworks becomes contingent on blockchain entries or if computational labor serves to determine and secure the commercial value of art, supplanting the notion of immaterial labor. […] Recent developments point in the direction of renewed vertical wealth concentration and the consolidation of control over decentralized systems. [2] (pp. 37–38)

7. Fallouts

The noteworthy minority of cogently critical artworks implies that, up to this point, the crypto art market has been reinforcing regressive modes of expression with trivial concepts and impoverished aesthetics rather than fostering meaningful creative initiatives in digital art [8] (pp. 22, 23) [26]. Crypto technologies enable the art market to reinvent and shield its ideology by expanding its product portfolio and capitalization into a range of digital art practices [11] (pp. 141–244). The vectors of status, hierarchy, and class affiliation remain fundamental, but now they shift toward crypto-economic power and become more volatile. As a whole, the market continues to favor ideas, production formats, knowledge, and value systems rooted in patriarchy, white supremacy, and eurocentrism, which have been ignoring or marginalizing other cultural praxes, cognitive models, and modes of existence for over 500 years. It filters out or diminishes the decolonial aspects of critical

artmaking, such as sociopolitical justice, eco-consciousness, inclusivity, and community building. These topics have been long eminent in the contemporary art discourse, but if they were more than just fashionable adornments of marketing rhetoric, the crypto-capitalist ideology would not have been able to pervade the artworld so quickly and efficiently. Correspondingly, the artworld provides a godsend coat of cultural extenuation to the crypto/blockchain sector and allows it to expand. Instead of democratizing and diversifying digital art, the crypto economy converts it into a lucrative asset class [63] that ultimately feeds oligopolist concentrations of power. Through faux decentralization and false democratization, it abets colonialist endeavors and the accumulation of extreme wealth [64,65].

The commodification of dynamic and potentially avant-garde digital art practices may be rationalized by the immediate economic interests of the art market, but its underlying conservatism diminishes the epistemological, ethical, and transformative values of these practices and art in general. Its ideological substrate is intellectually offensive to both the artists and the audience because it restricts the poetic diversity of artmaking to fit commercially viable models [66]. By enforcing arbitrary market criteria to define the social status and relevance of artwork, it degrades our mentality and cultural heritage. From a wider anthropological perspective, the crypto art market's capitalization on our primitive notions of possession and ownership is unethical because it exploits our limited concepts of existence and time [67], begets greed, and nourishes false anthropocentric intuitions.

8. Options

Artists' complacent strategies for entering the crypto market and satisfying their monetization appetites may bear a high cost of corrupting the open-mindedness and critical edge that distinguish most experimental art. People usually do not become artists believing it is the best route to become rich quickly, but out of a need to articulate human contact and communication through authentic and interesting creative expression. Throughout their careers, artists need to remain mindful of this privileged position which, unlike any other type of profession, can affect human lives in a potentially unrestricted variety of ways. Those obsessed with gaining conventional modes of advantage should note that the decisive competitive edge of artmaking—the ability to uniquely synergize knowledge, skill, and wit—has little correlation with individual net-worth signaling.

As a matter of principle, competent and responsible artists are expected to cultivate their poetic integrity and respect the expressive requirements of their works, resist the market's priorities for commercial viability, and raise awareness about the injustices in the contemporary artworld [8] (p. 22). They should be able to acknowledge that the markets' interest in digital art does not include the cultural values of heterogenous historically established creative practices that use computation for reimagining and problematizing our relationship with information technologies. Therefore, artists should be able to recognize that most online services and crypto monetization formats were neither designed nor intended to benefit their poetic considerations and long-term interests [68]. This calls for caution towards emerging offerings or encouragements from technological, economic, cultural, or political power sectors.

The wave of artists' preoccupation with profiteering and the prevailing cultural perception of artmaking as a job or business signal notional and moral deficiencies in our socioeconomic paradigms of merit and worth. They are based on the narrow definitions of authorship and ownership, as well as the fixed (proprietary) divisions of mental labor that benefit commercially-driven normative relations of production, distribution, and consumption [69]. Successful digital artworks exemplify that the widely distributed embeddedness of creative acts and the diversity of their cultural effects make it difficult, and ultimately absurd to fixate on associating monetary value with the mental effort invested in their production. As digital art diversifies, aspects of compound creativity are becoming increasingly evident and addressed more clearly by emphasizing the heterogeneous or conjugated actualization of the expressive agency. Influenced by hacker and FLOSS movements, the

digital critique of intellectual property highlights that, beyond generating revenue for content providers, copyright laws, patents, and licenses crystalize a certain subjectivity of individual authorship.

As Johan Söderberg observed, the justification for intellectual property within mainstream academia comes in four shades of grey [70]. The utilitarian view postulates that intellectual property is beneficial to common welfare as economic incentives increase the production of culture and information in society. Another approach borrows from John Locke's classic moral argument that the individual is entitled to an ownership right over the product of their labor. A similar school of thought draws loosely from Hegel and Kant to argue that private property rights are instrumental in ensuring the integrity of an author by preventing unwanted appropriations and distortions of their work. A liberal stance, introduced by William Fisher's "social planning theory", is critical of the intellectual property regime. It puts emphasis on the affected third parties, such as consumers and citizens, and approves of shorter copyright protection terms, expanded fair rights use, and the wider application of compulsory licenses. All these rationales carry some weight but ultimately fail to explain the forces and interest stakes that go beyond the well-being of creative individuals, professional guilds, lawyers, or media owners. They do not identify property relations as power relations and do not question the legitimacy of intellectual property per se. Marxist-informed approaches claim that intellectual property laws define culture and the concept of originality by sanctioning the individualized author-creator as the norm, whilst pathologizing or criminalizing hybrid, collective, and anonymous forms of creativity [70] (pp. 74–79). In that view, intellectual property laws, patents, and copyrights are only partially about generating revenue through the control of public access to information, but they primarily shape subjectivity, prescribe the modes of labor relations, and ultimately sustain the economy of waste and destruction.

9. Conclusion

For all these reasons, it is important to note that the artists' choices of monetization routes depend both on individual ethics and intellectual maturity and, to a significant degree, on the dominant economic models, which are currently focused on the maximum extraction of financial wealth or natural resources. Although the discussion of alternative economies is beyond the expertise and scope of this study, it is worth mentioning that some potentially viable approaches include generative modes of ownership that create and maintain conditions for the well-being and flourishing of just and eco-conscious communities to serve the needs of life without exhausting themselves or natural resources in speculative competition [71].

The relationship between the art market and crypto finance is dynamic and so is the blockchain-powered transformation of art production, representation, trade, ownership, and further use [72,73]. These processes incite the artists' pecuniary appetites but also stir up their ingenuity in utilizing, modifying, repurposing, and questioning their digital means for production, expression, and transaction, thus allowing us to expect further insightful projects that foster a better understanding of the crypto/blockchain complex and help improve socioeconomic reality. However, as much as we may project our hopes for societal betterment into the artists' abilities to subvert, hijack, and hybridize the emerging economic regimes, artists can hardly bring about such fundamental changes. Just as the early Internet artists have not been able to prevent the regulation of Web 1.0 and post-digital artists have in fact helped culturally reify Web 2.0, neither sophisticated crypto artists nor activist DAOs can resolve the tragedy of the commons that undermines human collective incentives. In general, artists do not solve global-scale problems; when successful, their work can instigate relatively small, individualized, and often transient changes in a complex web of non-mindful existential games. Acknowledging these limitations and cultivating a critical outlook on their creative means and economic instruments are necessary for digital artists to resolve the poetic contradiction of imposing false non-fungibility on inherently fungible

digital data, and the ethical and political contradictions of monetizing artworks within the current crypto/blockchain regime.

The potentially credible applications of blockchain technologies in the arts [74] demand careful assessment and their outright opposition or dismissal proved to be counterproductive [75], but constructive skeptical approaches are still in the minority compared to the crypto enthusiasts' advocation, so a suite of competent critical perspectives can be valuable for the nuanced comprehension and maturation of the field. Like all other technologies [76], blockchains are political both in functional logic and application, whose central domain foments some of the problematic aspects of human nature such as hierarchization, competitiveness, and greed, while the speed and efficacy of networked transactions amplify their expression. Therefore, a socially responsible approach should continuously integrate a stringent study of the blockchains' first principles with a rigorous assessment of the structural issues of their implementation (socioeconomic relations, software engineering, Internet infrastructure, etc.). For this approach, it is worth remembering that large-scale sociopolitical shifts require the prevailing collective momentum to reinform core human values, and no isolated area of creative activity has yet proven successful in articulating and instigating such transformation. The crypto/blockchain sector claims to have accomplished just that by projecting clever technical inventions into an idealized socioeconomic perspective, but tends to overlook their real-world incongruities, diminish their flaws, and dismiss their failures. The problem of creating and maintaining commons has never been purely technological and, even with hypothetically perfect technologies, its solution depends on a commonly enacted commitment to safeguarding shared resources and equitable access to them. This requires an ecology of inclusivity and care for both the objects and the subjects of ownership and interaction [23].

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