

The Untold Story of the NFT Boom

Digital creators used the blockchain to create a whole new art scene. Then their work started selling for thousands — sometimes millions of dollars.

By Clive Thompson

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"It's at 40.7 ETH," FEWOCiOUS gasped. "That's crazy."

It was not quite 4 in the afternoon, and Victor Langlois, an 18-year-old cryptoartist, was at

his desktop computer, watching a frenzied bidding war between two art collectors. Langlois — known by his art name FEWOCiOUS, or Fewo, to his friends and fans — was dressed in a white hoodie that he had designed, its arms covered in his own psychedelic art, including an eyeball and sunflower afloat in a blue sky. The room's window had been covered with cardboard to keep things dark, and a string of blue LED lights shone down from the ceiling. As the numbers rose, Langlois nervously pulled his beanie off and on, running his hands through his poofy black hair.

The bidding war began a day earlier, on Feb. 7, on the auction site SuperRare, when an art collector called @thegreatmandol offered Langlois 15 ETH for his digital painting "The Sailor." ETH is short for Ether, a cryptocurrency much like Bitcoin. A single unit of Ether can be worth a lot: The day of the auction, 1 ETH was equal to \$1,600. That meant @thegreatmandol had offered \$24,000 for Langlois's artwork. But the sum jumped when another bidder, @yeahyeah, offered 18 ETH, or roughly \$33,000. The two bidders pushed the price up and up, until by noon it reached \$67,905.92.

Langlois was initially unaware of this remarkable news. He had slept in, after a long evening hunched over his iPad making more art. He only scrambled to check the bidding when a fellow artist pinged him: "Guess who got a \$60,000 bid?"

When I dropped by his Seattle home, it was midafternoon, there were two hours left to go and bidding for "The Sailor" was at \$75,000. Langlois was on Twitter talking to other digital artists, who were excitedly cheering him on. "1 HOUR & 30 MINUTES LEFT! AHHHHHHHHHHHHHHHHHHHHHHHHHHHH

Langlois has an earnest, almost unsettlingly sweet affect; that's a conscious choice, he told me. ("I decided that because I had this upbringing where people were really mean, I was going to be the nicest person I could be.") As he watched the bids onscreen, he giggled nervously. "I can't believe this," he said. A year ago, he was a broke high school student, living unhappily in his grandparents' house in Las Vegas, where his grandmother would peek into his bedroom and, he says, dismiss his huge pile of acrylic paintings and colored-marker drawings as "ugly."

Because he had been selling his art on websites like SuperRare since the summer before, by New Year's Day 2021 — the day he turned 18 — Langlois had enough money to move out, and he headed for Seattle. He became a full-time artist; he came out as trans. He rented a house near downtown, which he stocked with art supplies, a Keurig coffee maker and a set of dumbbells (as yet unopened). "My family, they don't have money, and everyone always had two jobs and lived in terrible parts of California and came from El Salvador," he said. Making so much in a day was "just *weird*."

Langlois creates surrealist digital pictures and moving images, often grotesque, cartoony portraits — faces with dripping tears and exposed skin — that channel his darker emotions. The work he was selling on the day I visited, "The Sailor," depicts a huge-headed figure, its brain exposed like a mound of pink beef; its two eyes look as if they are cut from magazine pictures, a common motif in his portraits, and a paper-boat hat perches jauntily on its head. Langlois drew most of it on his iPad, curled up on the sofa in his living room during his first days in Seattle. Then he used animation software to add motion: The brain gently pulses, the eyes blink and blink. "The Sailor" manages to look both unsettling and whimsical.

Langlois isn't really selling the digital art, though. He's selling what's called a nonfungible token, which to its owners represents a unique relationship with the artist and the art. NFTs are digital files created using blockchain computer code, much like the code that makes Bitcoin possible. Langlois's NFT contains data that points to a copy of "The Sailor" online, as well as data about who currently owns the NFT. It is essentially impossible to duplicate. That means the NFT behaves — in the eyes of a new breed of collector, anyway — somewhat like a physical piece of art. Someone can own it, keep it or resell it to another collector. Langlois's animation is online for anyone to see, or even duplicate and download. But there's only one copy of that NFT.

Lately, NFTs have been the subject of countless spit-take headlines, part of a craze that began in December, when the cryptoartist Beeple sold a group of works for more than \$3.5 million. By the spring, a dizzying array of digital files — video clips of LeBron James dunking, Jack Dorsey's first tweet, the "disaster girl" meme — were being minted into NFTs and auctioned off for hundreds, thousands or even millions of dollars. The New York Times itself has participated in the craze: Its technology reporter Kevin Roose created an NFT out of one his columns and auctioned it for a sum worth, on the day of its sale, about \$560,000, with the proceeds going to charity.

No one quite agrees on what this gold rush means. If you ask hard-core champions of Bitcoin — the often-libertarian "crypto natives," as they call themselves — NFTs presage the future of digital property. They're a glimpse at a coming day when people spend their income on digital items they can trade, resell or hoard as an investment; when government will lose its unique power to mint currency and protect property, because people will instead trust the implacable math of blockchain networks. But there are abundant risks and downsides in this NFT vision, most notably environmental costs. The network Ether runs on requires vast amounts of energy, roughly the same amount per year as Hungary, by one estimate. NFT skeptics also regard the scene as yet more crypto zealotry meant primarily just to keep people talking about cryptocurrencies so that Ether

and Bitcoin prices stay high. It looks to them like more empty speculation, the next phase in the decades-long financialization of everything.

Since the mania touched off six months ago, the beneficiaries of this anything-goes proliferation of NFTs are, increasingly, people who are already winners in the modern attention economy, from traditional celebrities and brands to everyday people retailing a meme that generated billions of clicks and bursts of fame. Paris Hilton sold a series of NFTs of digital images for more than \$1 million; the Golden State Warriors auctioned off NFTs of a collection of digital memorabilia; the guy who snapped the infamous picture of a cheese sandwich from the Fyre Festival is selling an NFT of his tweet with the image to pay for a kidney transplant.

Cryptoartists like Langlois, though, were the ones who kick-started this boom — a strange provenance for a trend that seems to be tipping the cultural economy on its head. As recently as last year, cryptoart was a subcultural vanguard, maybe even a school of sorts, in which the aesthetic of the work being sold (love it or hate it) was in dialogue with the unusual method of selling it. And it was SuperRare and a handful of other sites that created the market, gradually persuading the mostly young, highly online cryptocurrency millionaires to open their virtual wallets and lay out huge sums for digital tokens.

For those artists, the sudden riches can be life-rattling. By the time I first met with Langlois, in January, his digital sales had already reached \$300,000. And while Langlois is one of the breakout stars in his world, scores of other digital artists — formerly broke or hustling commissions for website design — have also begun to make a living from their art. The question of whether NFTs endure or end up as a 21st-century version of tulip mania means a lot more to these artists and their unusual sensibility than it does to the art world and other institutions that have edged into this speculative frenzy.

Back in his darkened chamber, Langlois was monitoring his auctions. In addition to "The Sailor" on SuperRare, he had three other works for sale on the website Bitski, in limited editions. Their prices were rising, too.

In the last few minutes before the 5 p.m. deadline, @yeahyeah swooped in with a winning bid of 46 ETH, or about \$80,0000, for "The Sailor." "I'm gonna faaaai-nt," Langlois chanted, in a singsongy voice. He wrote a long direct message to @yeahyeah thanking him, then clicked the button on SuperRare to transfer "The Sailor" over to @yeahyeah's digital wallet.

Langlois leaned back in his chair and took stock of his day. When his sales on Bitski, totaling almost \$29,000, were added to the proceeds from "The Sailor," he had brought in just over \$109,000.

"You know what makes me sad?" he said, turning to me. He had been celebrating all day, messaging with his online friends, but there was no one from his former life to call. "I don't have siblings," he said, "and I don't talk to my family anymore." Even if he could call them up, his new life would be difficult to explain.

For decades, digital artists got little respect. To the tastemakers in the world of fine art, their work seemed more like a commercial craft — could something made with Photoshop, say, really be *art*? Galleries frequently showed disdain for digital work, as one NFT artist, Android Jones, told me: "It's just a bunch of gatekeepers." And why would collectors pay for an image anyone could right-click on and download free?

Then Bitcoin emerged in 2009, proving that with blockchain code you could make digital items that were all but impossible to copy. The first artistic experiments in that vein were made by the New York-based fine artist Kevin McCoy, who became intrigued by Bitcoin and its blockchain soon after its debut. He wondered if it could show the way toward a new revenue stream for creators. McCoy was especially excited by the prospect of decentralization — the blockchain could enable an artist to sell works to fans directly, without the need for an iTunes-like intermediary. In 2014, McCoy, collaborating with the entrepreneur Anil Dash, created an experimental crypto token for a piece of his own digital art. They called it "monetized graphics." The next year, McCoy opened a small start-up that let artists create and sell tokens of their work. He was met, mostly, with blank stares. "It was a tough grasp for people," McCoy says.

In the spring of 2017, the concept took on new life. Matt Hall and John Watkinson, two programmers in Brooklyn, created a set of collectible characters, little pixelated heads of punk-rock-looking creatures that they called CryptoPunks. (They're fond of "wacky projects," Hall told me.) They were unaware of McCoy and Dash's earlier experiment. But they knew about Ether, then a new cryptocurrency that ran on a platform called Ethereum. That platform had a simple programming language that enabled coders to create new financial products with Ether as their currency. Hall and Watkinson used that language to issue an NFT for each CryptoPunk, figuring that people would be tickled by the idea of possessing little pixelated heads, perhaps trading them like baseball cards.

Like most cryptocurrencies, Ether relies on thousands of "miners" — people running computers all day long, all around the world, to crunch the math for Ether transactions. These miners collectively function as a huge accounting system, in which every accountant keeps the same exact set of books. Each miner records the current location and history of all transactions on the Ethereum network. When you send 1 ETH to my Ethereum wallet, it will quickly be recorded on each of those computers around the world. This makes a transaction in Ether — or one in any similar cryptocurrency — hard if not

impossible to fake. If you later try to claim that *you didn't* send me that coin, thousands of computers have the records to say, "You're lying; I own it now." Blockchain systems like this are decentralized by design; proponents argue that this makes them difficult for any government or corporation to control. It's also why many of them consume such prodigious amounts of energy, to power thousands of mining computers. Because miners on the Ethereum network earn Ether for running those computers, they have an incentive to keep the entire network up and humming. Cryptocurrency networks like Ethereum are fairly transparent; all those transaction records, from one wallet to another, are publicly visible to anyone. (Visible, but anonymous: Your Ethereum wallet doesn't have to have your real name on it, which is why criminal enterprises value cryptocurrencies, too.)

Hall and Watkinson created 10,000 CryptoPunks and put NFTs of each of them on a website where anyone could claim one for free and transfer it to an Ethereum wallet. They decided to give away 9,000 Punks and keep the other 1,000 for themselves.

Few were claimed right away. Then, several weeks later, the website Mashable published a story proclaiming that CryptoPunks "could change how we think about digital art." A frantic subculture was born: Visitors swamped the CryptoPunks site — and "within 24 hours they were gone," Hall told me. Owners began reselling the NFTs to new collectors, for hundreds of dollars at first, then tens and hundreds of thousands of dollars. Later that year, another NFT collectibles site called CryptoKitties appeared, where people bought and traded NFTs of digital cats. By the end of 2017, some individual Kitties and Punks were selling for as much as \$170,000.

"It was a psychological experiment as much as a technical one," Hall says. The boom in Punks and Kitties had the same dynamics as a Beanie Baby craze — a collectible abruptly becomes widely desirable merely because, in a self-reinforcing loop, other people think it's desirable. The crypto-collectible trend was boosted by new cryptocurrency wealth: In late 2017, Bitcoin and Ether were surging to new highs and minting young crypto millionaires. And Bitcoin devotees were, of course, already primed to accept that something is valuable just because they decide it is; indeed, they pride themselves on not requiring a government's fiat to give a currency value.

The boom in Kitties and Punks inspired John Crain, a founder of SuperRare. At the time, Crain was working for a cryptocurrency incubator. Crain, who owned some CryptoPunks, imagined a marketplace for digital artworks much as McCoy had years before. If digital culture could be owned and traded, an entire new market could emerge, he told me — one with high-earning artists but also, he hoped, a "long tail" whereby even obscure artists, with only a few fans, could make a bit of money. Cryptoart could offer artists a better deal, he figured: Historically, galleries take about 50 percent of the first sale, while SuperRare would take only 15 percent. On top of that, cryptoartists would get a cut of resales, something generally unheard-of in the traditional art world. Crain and his co-founders wrote the code for their NFTs so that artists automatically get 10 percent of the sale price every time an owner resells their work.

He began reaching out to digital artists who posted their work to Tumblr or Giphy, a repository of animated GIFs. A few of them began using SuperRare to create NFTs for their work. "Every person who joined was like super-excited, even if everyone else thought you were so crazy," Crain says. But there weren't many collectors yet.

What sales there were went for small sums. One artist, Coldie, began listing his work in April 2018, and his early sales were for perhaps \$100 each. Still, he found the scene gratifying; he had "super-deep philosophical chats" with collectors and other cryptoartists. "I could not have been more happy," he says. "It was just an artist and a collector having a relationship." Did he know that his stuff was worth more money? "Hell, yeah — but, like, market value is what you sell to."

In 2019, the market for cryptoart began to heat up, when Coldie sold a piece for \$1,000. "I crossed a threshold, and, like, Richter scale — people were losing their freakin' minds," he says with a laugh. Artists and collectors called him "King Coldie."

By the middle of 2020, prices were soaring. Another record-setter was Matt Kane, a former painter who had become disillusioned with traditional galleries and spent the late 2000s and early 2010s teaching himself coding and web development. He wrote custom software to help him make intricate digital paintings. In May 2019, he released his first works on SuperRare, a series based on the grief he felt after a friend's suicide. His early NFT sales were meager; one collector bought an artwork for \$85 and sold it the next week for a profit of \$59. "He flipped it for 60 bucks!" Kane told me, incredulously.

But by September 2020, he had toiled for months on something even more ambitious, a piece of abstract art whose composition changed based on Bitcoin's price. One of his first collectors — who called himself Token Angels and came from a family that collected art — had pressed him for the auction date, offering to pay whatever Kane wanted. "I told him that I thought \$100,000 made a good story," Kane says. To his surprise, Token Angels agreed. That price set another record and acted as a sort of psychological release: If people would pay six figures for a digital file, was there any limit?

Ever since Bitcoin's appearance in 2009, blockchain enthusiasts have claimed that its capabilities would revolutionize industries. Soon, they promised, everything from medical records to stock markets to agricultural inventories would use the blockchain. But little of

this happened. Instead, the first popular digital application — outside cryptocurrencies themselves — was for buying and selling trippy, loopy digital images. "It does feel like we've discovered some behavior that we didn't quite know was there before," Hall says.

Langlois first started making digital art when he was 12, playing Minecraft. Inventive players would make their own "skins," which customized how their characters looked inside the game. A YouTuber he met online taught him how to meticulously design skins, pixel by pixel. He started making thumbnails for friends' YouTube channels, at \$5 each. The creative work was refuge from an unstable home; this was the year, he says, when social-service authorities sent him to live with his maternal grandparents.

At his grandparents' house, Langlois's days were safe but dull, and he began spending hours drawing with markers to amuse himself. "Literally, it was either you sit and watch TV — and not Netflix, not anything cool, you watch three channels — or you draw," he says. At 13, he got an iPhone, and it opened a portal to the digital-art scene online. Langlois photographed his hand-drawn pictures to post on Twitter. Then he switched to drawing directly on a tablet with apps. He came to prefer this medium, because it was more private: He could hunker down while avoiding the disapproving scrutiny of his grandmother. He heard about Dostoyevsky from a podcast and devoured "Notes From a Dead House," thrilled at the writer's account of persevering while imprisoned. "When you're in this prison, you think you're going to die at the end, why do you stay alive?" Langlois says. "I love that. I love will, and why people want to live. That's what art is about."

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In the summer of 2020, Langlois stumbled into the cryptoart scene, almost by accident. He had begun selling the occasional print online. A customer who bought a painting of his for \$90 wrote to suggest that he issue an NFT on SuperRare. Langlois was dubious. "I was like, 'This is a scam,'" he told me. " 'This is not real. He's trying to take my money.'" But after researching SuperRare online, he decided the site was legitimate, and he applied to list his art there, submitting several pieces and a video. He was admitted the next day.

Langlois had no idea what bids he should accept. What was his art worth? He asked Zack

Yanger, SuperRare's head of marketing. "He said: 'You're going to get bids for \$60 or \$600 and that will look like a lot. But I promise you if you hold it, it'll pay out,'" Langlois recalls. He followed the advice. On June 5 he posted "i Always Think of You," inspired by a high school heartbreak, which featured a purple-nosed, red-lipped Dali-esque face and the words "is this what you like?" The first bid was a tenth of an ETH, then worth perhaps \$25. Over the next few days, bids rose to \$130, then above \$500. When they reached 4.5 ETH, or \$1,017, he finally sold.

He posted a video on Twitter of himself yelping with excitement. "I was mind-blown," he says. "I was over the moon with gratefulness." In the next few weeks, he sold works for prices from \$1,000 to \$2,000; by September, he was selling things for more than \$8,000 and trying to save enough so he could move out and no longer be under the control of any guardians. His grandparents didn't interfere with his moneymaking or ask to share the earnings, which he appreciated, but his grandmother could be withering. When he excitedly told her about a sale, he says that she replied, "They'll forget about you." By November, he had more than enough to move out — a single sale, at the NFT site Nifty Gateway, went for \$25,000.

Who exactly is paying such sums for an NFT? Generally, they are young men who have invested in cryptocurrencies for years and seen those holdings reach many millions in value. One of Langlois's collectors — who bought the \$25,000 work — was Eric Young, a full-time crypto investor in his 40s. He started investing in Bitcoin seriously in 2018, he says, and "made good money"; he loved the consistency of Langlois's aesthetics and the welter of detail he packed into his work. "To have this much talent, this much range, being that he just turned 18" — that was amazing, he says.

For some crypto investors, it's clear, buying cryptoart gives them something artsy to talk about in a field dominated by otherwise numbingly technical conversations. "There's only so long you can deal with ex-financiers in crypto and start-up people telling you about blockchain medical records," as one Manila-based collector, Colin Goltra, put it to me. He loves the long, late-night conversations over text with artists like Pak, famous for having taken a Warholian, concept-art approach to NFTs. (Pak once sold a series of NFTs that were exactly the same image, at prices ranging from \$1 to \$1 million.) Having access to the artists — who tend to be happy to talk to their wealthy new clients — is a lure.

There is also the excitement that comes from taking part in what seems to be a historymaking moment in art and culture. In April, Young spent \$1.4 million on an NTF of "The Pixel," a work by Pak, auctioned by Sotheby's, that consists of — as the title suggests — a single pixel. Young told me that he bought it because he had seen the NFT world become so crowded that he wondered about his legacy as a collector: "How would I be remembered as the months and years went by? Would I be remembered?" When he saw "The Pixel," he thought it stood out as a statement: the concept of NFTs stripped to its core, "the slightest aesthetic representation of the medium."

For the nerdy crypto crowd, cryptoart's aesthetics — and its clubby, Twitter-heavy networking — felt like an art scene they could finally "get." Most collectors I spoke to had never bought any physical art and were slightly intimidated by the prospect of going into a gallery. They often didn't know much about art history. But the visual palette of much cryptoart spoke to them, because it had been heavily influenced by memes and the trippy, glitchy tropes of the internet or the futuristic style of sci-fi movies and illustration. If cryptoart was in any sense a visual aesthetic movement, that would be the through-line: a generation of creators whose inspiration came not from looking out the window but from looking into Windows — beholding a digital world of software, movies, games.

"I feel like my original introduction to digital art was the 'Final Fantasy' video game kind of vibe," says Blake Kathryn, a Los Angeles cryptoartist and filmmaker who uses 3-D modeling software to create images of sleek, android-ish figures and vistas of dreamy architecture. (She created Paris Hilton's digital portrait that sold as an NFT for \$1.1 million.) "It was trying to be hyperreal, but the technology wasn't there to make it real," she says. "Your brain fills in the blanks of what it should look like in a higher fidelity." Another cryptoartist, Olive Allen, often uses pop-culture icons from Furbies to the videogame character Kirby in her NFT work. "It's really an art form for an Internet-addled mind — like, totally A.D.H.D. generation," says Colborn Bell, the co-creator of the Museum of Cryptoart, which owns hundreds of artworks and displays them online. He didn't mean it as an insult.

The traditional art world is divided about the aesthetics. Last fall, the Vancouver Biennale decided to include NFT art, and the Biennale president, Barrie Mowatt, went to several NFT sites to scout for some works. He eventually found pieces that impressed him, but, he says, "I remember thinking, Boy, there's a lot of [expletive] art right here." Noah Davis, a specialist in postwar art at Christie's who is a more enthusiastic fan, argues that cryptoartists have a playful spirit often missing from fine art. But he understands why old-school art collectors turn up their noses: "Some of it does look like it belongs in a head shop or on a dorm wall or, you know, on a message board," he says.

Clearly the NFT market is in part being driven by speculation: Many collectors regard cryptoart as a potentially lucrative investment, much like Bitcoin itself. And on some level it also facilitates pure peacocking, conspicuous consumption for a crypto age. Paying outrageous sums for art — bidding against others in financial combat — is an age-old way for rich people to flaunt their wealth, Kal Raustiala, a legal scholar at U.C.L.A., points out.

"The status-signaling parts are really huge," Raustiala says. "There's a lot of wealth, and people need a place to park it."

In the old days, people hung their \$40 million Picassos on their mansion walls. Because NFTs are just data, though, cryptoart collectors are mostly staring at screens (if they're even looking at their holdings). Sometimes these are very high-tech screens. Collectors have created virtual-reality galleries so they can strap on their goggles and behold their art on a virtual wall and invite friends to join them for viewing parties. Other collectors eschew this sort of display; they simply pull up their art on their iPhones or computer browsers, the way they use Instagram. Indeed, several people told me that they appreciate digital art for space-saving reasons. Before he discovered cryptoart, Token Angels bought so many actual paintings that his family upbraided him: "Stop buying things, stop buying these pictures, we don't have any more walls!" Now he has a virtual 3-D gallery at an online site called Cryptovoxels, where he exhibits his cryptoart, including his \$100,000 Matt Kane. "I would describe Matt Kane's art as a pure orgasm for the eyes," he told me, "because these images are so beautiful, you want to zoom in."

There's one aspect to NFT culture that can seem utterly bewildering to outsiders: Someone who buys an artwork NFT owns only the NFT. The NFT typically contains data that corresponds to information about the artwork, including the creator, the title and a link to an online copy of it. But the visible part of the art, the JPEG or animated GIF, the thing you look at? That is just a digital file hosted somewhere online, with the NFT commonly pointing to it. (If that site hosting the art goes down, the NFT no longer even points to anything.) Anyone can go to SuperRare or another NFT art site, right-click to copy the file, and then post it to Instagram or Facebook, say, or make it the background on a phone.

So what, precisely, do the collectors think they're getting when they buy an NFT? Many say they're acquiring proof of their ties to the artwork and to the creator. They can assert bragging rights, as it were. As for the pixels themselves — well, no one cares if other people can see them, too. "I can hang a really nice print of the 'Mona Lisa' on my wall and that doesn't mean I have *the* 'Mona Lisa,'" Goltra told me. All the collectors I spoke to professed to be happy if the artworks they owned were copied widely around the internet: Millions of people staring at a piece of digital art make it more valuable for the person who owns it.

For crypto diehards, these are the early days of a grand shift to an economy in which creators will sell anything digital — music, video-game add-ons, articles, photos — that used to be easily copyable. "This is sort of like the Internet Relay Chats in 1996, and Facebook hasn't even been invented yet," says Duncan Cock Foster, a co-founder of Nifty

Gateway. André Oshea, one of a comparatively small number of successful Black NFT artists, is optimistic. "I spent years posting art for free to potentially gain clients," he says. "And now this space is taking away from the abuse of artists online."

There are plenty of drawbacks to the rise of the NFT market, however. The chief one is its energy use: All those Ethereum-mining computers currently use an estimated 42.78 terawatt hours of electricity a year, according to Alex de Vries, an economist who tracks cryptocurrency emissions. Some artists are deeply concerned.

"What troubles me is the amount of waste that we try to justify for profits," says Joanie Lemercier, a French artist. Last winter he made \$30,000 selling several NFTs. He had another art "drop," or release of works for sale, planned for February, which he hoped would bring in as much as \$200,000 — "literally probably two or three years of my gallery sales" — but as a climate activist, he couldn't justify consuming more energy to create digital scarcity, so he canceled the release. "I left a lot of money on the table," he told me.

Other artists are dismayed at how rapidly NFTs have turned into a hit-based, winnertake-all game of speculation. Sparrow Read, a cryptoartist in Britain, did an analysis of NFT sales with a data scientist named Massimo Franceschet, and they found that a tiny minority of artists and collectors held most of the wealth produced by NFT art. Read told me that the system of marketplaces that encourages competition with leader boards and bidding wars doesn't look like the democratized vision of the early NFT days, when it promised to lift the boats of all digital artists. The collector base is almost entirely male, and the majority of artists are too.

Perhaps those who feel most comfortable with their good fortune are in the middle — the smaller population of artists who aren't becoming rich but are now making a decent living. One of them is Sarah Zucker. A 35-year-old animation scriptwriter who lives in Hollywood, she is also a longtime photographer who has sold prints on the fine-art market. To pay the bills after finishing grad school, she ran a website-development firm in the early 2010s, but she soon discovered that she had a talent for making viral animated GIFs. Her work often has a distinctive analog quality, because she uses low-fi equipment from the 1980s and '90s to make it. For one of her signature techniques, Zucker points a camcorder at a TV that it's connected to, in order to produce infinite-mirrors-like imagery. "I'm a feedback cowboy," she told me.

As a creator of animated GIFs, Zucker enjoyed great success, eventually posting 1,500 GIFs on Giphy that racked up 6.6 billion views. ("You're only one billion away from the entire population of the earth," a friend of hers joked.) Those GIFs didn't make her any money, but they attracted corporate clients who asked her to create work for their

marketing campaigns.

Zucker became an early adopter of SuperRare — "I'm part of the old guard now" — and profited from the boom of 2020, regularly selling pieces for \$2,000 to \$4,000. When we met in Los Angeles in February, she told me that she had just done her taxes and found that nearly her entire income now came from cryptoart sales. "It's not hyperbolic to say that it's changed my life," she said. She also got into the Vancouver Biennale.

The velocity with which the money comes in — a recent release brought her \$13,117 in a single day — along with the rapid fluctuations in value of Ether "breaks the concept of money," she said. "Like all these years I think of things I have done, and slaved over, for so much less money than that." These days she has time to linger over the creation of individual pieces, because she doesn't need to hustle for commercial work. Plus, she is getting 10 percent in royalties for resales of her work. "This is in perpetuity," she said. "One day when I am, you know, a wizened elder sage and I establish the Sarah Zucker Foundation or whatever or the scions of my line, they could be holding my Ethereum wallet 100 years from now, still earning royalties. How much would van Gogh's descendants have earned?"

For Langlois, the cryptoart world became his replacement family. When he moved to Seattle, a fellow artist he knew there from online, Nathaniel Parrott, picked him up at the airport and took him under his wing. Langlois stayed with Parrott and his girlfriend while he hunted for a rental house. When he needed to get a mattress for his new place, Parrott's girlfriend bought one for him online, and Langlois repaid her in Ether — he had no credit card.

Parrott, who is 25, often hangs out at Langlois's house and was there when I visited in February. "For the past five years I've been touring as a musician, playing festivals and bars and whatnot," Parrott told me. "It isn't the most lucrative lifestyle. I was getting, like, 40 bucks a year from Spotify," he added, puffing on a vape pen. He and Langlois were sprawled on the living room's green couch, which they had shoved awkwardly near the entrance so they could make space for two easels, on which half-finished paintings were perched. The room was a riot of art materials; on a table in the center of the room lay a Stratocaster guitar that Langlois was painting, surrounded by tubes of paint, modeling paste and a blue heat gun for drying paint that looked like a sci-fi blaster.

'To be crass, when you see numbers like that, you start to pay attention.'

"Fewo's a blue-chip artist at this point," Parrott said. He wasn't doing badly himself. In June last year he had been driving for Uber for more than a year when a musician friend described the cryptoart market. Parrott had long made digital art on the side, including album covers. He put some works on SuperRare as an experiment. One of them sold for \$30 — Sweet! That's like dinner for tonight! he thought at the time — and by November he had two pieces sell for a total of \$10,000. He stopped driving for Uber.

Parrott opened his phone to show me something he sold an hour earlier: a brilliantly colored wilderness scene, with the white outline of a deer in the center, like a cutout ghost. It sold for \$5,000. Colin Goltra missed out on the sale and messaged Parrott to say, "You should have made it more expensive." Parrott argued that the cryptoart boom owed something to the pandemic. "It's kind of a perfect storm of conditions right now with everyone stuck in their house on the internet and having that desire to collect art still," he said.

Later in the evening, they moved into an adjoining room to work on their next NFT project. The two of them were collaborating with two other artist friends on a release of multiple pieces of art. One of these would be a limited edition of an image produced together by all four friends. Whoever bought a piece would, they decided, also get a figurine that they were fabricating.

They had bought a 3-D printer to make the figurines. Parrott crouched down beside it in order to refill it with plastic filament. "This is like one of the first pieces of technology that I've worked with where it makes me feel like I'm living like a sci-fi movie of the future of something," he said, pecking at the printer's L.C.D. screen.

Langlois picked up one of the figurines they had already printed, a humanoid with devil horns and cubelike protrusions from its body. "The curves turned out amazing!" he said. "The feet, you can kind of see some muscle."

Parrott used a sander to smooth the bottom of the figurine's feet. Langlois, splayed on the ground next to him, recounted the strange experience of opening up a bank account for his business after settling in Seattle. It wasn't easy to explain to the banker what he did for a living. "He said to me, 'You're self-employed?'" Langlois recalled. "And I said, 'Yeah,

I'm an artist!'"

Parrott chuckled. "First time he heard that in his life."

"He said, 'Oh, what kind of art do you do?' I said, 'Cryptoart.' And he said, 'What?'"

Parrott laughed again. The banker was perplexed by Langlois's statement of assets; it totaled \$300,000, but only half of that was in cash. Where was the rest? In Ethereum, Langlois replied. "What's Ethereum?" the banker asked.

"The world's changing," Parrott said.

They grabbed a spray-can of primer, grabbed the five printed figures and went into Langlois's garage to start spraying them with a white base coat; the artists would add their own decorations later. When I left at 11 p.m. they were still painting. A month later, the four artists sold their works for just over \$3 million.

The acme of the NFT market — or the height of its delirium, depending on your point of view — is probably Beeple. That's the art pseudonym of Mike Winkelmann, a 39-year-old digital artist in South Carolina. Fourteen years ago, he began producing "Everydays," a daily work he posted online to hone his craft. "This decades-long-now project that, you know, I'm working on and will, you know, at this point, continue working on it until I die," he says. The project began as paper sketches, but later he began using 3-D modeling software. He favored surreal, sometimes grotesque images, sometimes riffing on pop culture or daily events: a burly Tom Hanks punching the coronavirus, a head of Buzz Lightyear cracked open with a blood-flecked brain and Woody inside. His fame grew online; D.J.s used his images in shows and then brands like Louis Vuitton and stars like Nicki Minaj and Justin Bieber started to work with him. He had more than two million followers on Instagram.

When he heard about cryptoart in October 2020, he was astounded to discover that artists much less famous than he were making thousands of dollars. "People are making a [expletive] of money," he told me the first time we spoke, in January, over Zoom. He was sitting in his living room in his bright, airy house in Charleston, S.C. "I know all the artists in this space! And to be quite honest, I'm more popular than all of them."

That month, he began doing his own drops. His first one was three caustic images; one depicted an obese and naked man astride a bull, wearing a Guy Fawkes mask and raising a middle finger. Winkelmann made more than \$130,000 on that sale. In December, he did limited-edition sales of NFTs of some of his "Everydays" images, including one NFT that included 20 "Everydays" together. All told, he brought in more than \$3.5 million over a weekend.

He was ecstatic. He also regarded it as validation of digital art, which is, he argues, far more influential now than traditional painting or sculpture. "Digital artists are people who are actually shaping the visual language of society," he told me. He pointed to the TV behind him, filled with chyrons and graphics from a news show. "Those graphics down there?" he said. "Everything you're looking at right now — digital artists!"

Winkelmann is hungry for cryptoart to get more mainstream respect. "I want my mother to feel like she can buy this," he said. He ordered 600 book-size L.C.D. panels, encased in clear plastic, to be shipped to his buyers; they can plug it in, place it on the shelf and put their digital art on display. Everyday people just want something pretty on their shelves, he said, and aren't likely to use the VR galleries crypto collectors are fond of. "We're not in the metaverse yet," he said. "A lot of these crypto guys want to freaking get in their tub of goo, plug it in: 'OK, I'm in the goo, and I'm a giant ostrich and whatever. Jack me in, man!' But it's 2021, not 2080, so we're not there yet. So I think we need baby steps."

In January, Christie's contacted Winkelmann about doing an even more prominent auction. "To be crass, when you see numbers like that, you start to pay attention," Noah Davis told me. They decided he would turn nearly his entire run of "Everydays" -5,000 of them - into a single NFT. Someone would be buying 13 years of his work.

The auction was held on March 11, and while it was going on, Winkelmann joined a live audio conversation about NFT art on the social media platform Clubhouse. At one point, someone gasped when the bidding hit \$50 million. Winkelmann left Clubhouse and watched his NFT finally sell for \$69 million. "What the [expletive] just happened?" he said.

The story of who bought it, and why, is a sign of just how deeply NFTs are tied up in the financial engineering of cryptocurrencies. It turns out that Beeple had major collectors: Vignesh Sundaresan and Anand Venkateswaran. They are the founders of Metapurse, a fund that collects NFTs. They bought his \$69 million NFT, and back during Beeple's weekend December sale, they had created several pseudonymous accounts that bought 20 of his NFT "Everydays," worth \$2.2 million together. Sundaresan — who goes by the name MetaKovan online — told me that he had been investing in cryptocurrencies for years. He lives in Singapore, which he has chosen as a home in part because he regards it as friendly to cryptocurrencies. "My fear is that governments are going to be like: 'You, sir, you hate us and you hate our dollars. So why do you want our police to save you now?'" he said.

Sundaresan and Venkateswaran had a plan for Beeple's art. For the first purchase — the 20 Everydays — they bought plots in three online 3-D worlds and hired a team of

designers to build virtual museums in each, filling them with Beeple's art. Sundaresan and I met virtually inside one of the museums, where we wandered around as gamelike avatars, stopping at pieces like one that showed Tom Hanks punching a coronavirus. "The gallery's public," Sundaresan said, free for anyone.

But the museums were only the beginning of their plan. The other part was to turn Beeple's work into a new cryptocurrency, essentially. In January, they took the 20 Beeple "Everydays" NFTs they had bought for \$2.2 million and created a new set of NFT tokens, 10 million in total, called B20. Those tokens represent fractional ownership in that Beeple work. They paid 10 percent of the tokens to the designers who built the virtual museums, he said, gave 2 percent to Beeple and kept 50 percent for themselves. Some of the remainder would be put up for sale. "The idea here was to take the art and share the ownership with a lot of people," Sundaresan said, as our avatars floated up and over the museum.

'I'm sure there's a version of this where I look very foolish in a couple of years.'

Those B20 tokens may have already generated — on paper, anyway — a hefty return. In late January, Sundaresan and Venkateswaran held a virtual party in their online museums to introduce their new token. In short order, they sold 2.6 million tokens, raising close to \$1 million. On March 10, the value of a B20 token peaked at slightly above \$27; by May 7, it had fallen to just over \$2. Assuming they still have their five million tokens, their share is worth about \$10 million.

Sundaresan owns the work of many cryptoartists, including Sarah Zucker. But it was Beeple's huge pre-existing appeal that led Sundaresan and Venkateswaran to select his works as the basis for the new token. "I wanted to really choose someone who can have commercial value," Sundaresan told me. Assuming they do the same thing with Beeple's \$69 million NFT, they could make even more.

Winkelman himself was surprised to learn that his art was turning into what, in crypto circles, is referred to as a "decentralized finance" product, a "defi" play. But "this crazy [expletive] fractionalized derivative defi thing," he added, explains why they would pay \$69 million for his second big NFT drop. "It's like, 'Oh, no, that actually makes sense!' It's

actually a totally justified number."

Do the stratospheric prices of NFTs indicate a frothy, high-tech bubble, fated to burst, possibly even by the time you're reading this? It certainly looks that way, and many collectors themselves agree that it is quite possible. This doesn't scare them, they say. Bitcoin and Ether have cratered in value several times, but they recovered each time and surged to record heights. Many collectors told me that the NFT market is likely to go through similar shakeouts.

"I'm sure there's a version of this where I look very foolish in a couple of years," Goltra told me when we first spoke in December. The art craze might die down for a long cycle, leaving his collection worth very little for years, even decades, he says. But he expects NFTs to colonize nearly every corner in the culture. "Artists of all kinds are figuring out how to monetize and price their audience and their fandom," he says. "It's consistent with the original crypto vision of cutting out middlemen."

On a deeper level, some observers regard the rise of NFTs as a symptom of a longbrewing problem in Western economies — "the financialization of everything," as Scott Galloway, a marketing professor at New York University, puts it. During all the bubbles of the last few decades, he notes — from the tech-stock boom to the subprime-mortgage boom to the bull market of the last few years — a result has been "trillions of dollars in economic growth over the last 30 years, a great technology age. But we've seen wages flat and one in five households with children is food insecure." Some artists may get rich in the short run, he says, but anything that turns economic activity into sheer speculation tends to boost inequality.

Anil Dash, the NFT pioneer, also suspects that few of the venture capitalists and entrepreneurs rushing to create NFT markets care about anything other than creating new lucrative derivatives. He doubts their professed concern for artists: "'We're liberating the art market!' I'm like, 'Dude, did you have a concern about the art market?'" Galloway also suspects that NFTs could hasten the mass adoption of cryptocurrencies in everyday life, a dream of Bitcoin fans but one that worries Galloway: If national currencies truly atrophy, he fears, the United States, as the holder of the main global currency, stands to lose the most, something that would please rivals like China and Russia as well as money launderers and criminals.

When it comes to the enormous energy demands made by NFTs, there are some possible technological fixes. NFTs can be verified on the Ethereum network using a different mechanism, called "proof of stake," which uses as little as 0.01 percent of the energy currently used by the Ethereum mining network, according to some estimates. The

developers of the Ethereum network settled upon a design for their proof-of-stake technology around 2018 and have been working on its implementation since then; it was introduced in 2020, and researchers and engineers with the project intend to fully switch over to it later this year or early next. Until then, artists like Joanie Lemercier are urging cryptoartists to stop using sites such as SuperRare and to shift instead to the small handful of exchanges, like Hic Et Nunc or Kalamint, that already use proof-of-stake technology. Thus far, however, more artists seem to be sticking with the more energyintensive markets.

The last few times I spoke to Langlois on Zoom, he had become, in the sped-up dog-years of the NFT scene, something of an old-timer himself. He was a bit astonished at how quickly this odd backwater had become the focus of a national conversation; celebrities and major brands were now driving the trend even more than artists. "NFTs are just something that people either make fun of or just talk about very casually — even if they don't understand what it's about, they talk about it, right?" he said.

It didn't bother him. He suspects NFTs are here to stay, for the crazy meme collectibles as much as for the artists. He and Nathaniel Parrott had just flown back from San Francisco, where they visited SFMOMA to gather ideas for his next NFTs. His head was swimming with ideas. "Art is taking off," he said, "and somehow I'm at the top of the crazy community."

Gallery rendered by Justin Metz

Clive Thompson is a contributing writer for the magazine, as well as a columnist for Wired and Smithsonian. His last article for the magazine was about working remotely. His most recent book is "Coders: The Making of a New Tribe and the Remaking of the World."