Developments in Web3 for the Creative Industries

A Research Report for the Australia Council for the Arts

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Part 2: Why are Creative Practitioners using Web3?

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Part 2: Why Are Creative Practitioners Using Web3?

Creative practitioners have pioneered the use of blockchain technology, transforming web3 in the process. Here we examine what artists are doing with web3 technologies and what this means for the cultural economy and for innovation. We identify key transformations that span the practices of collecting, connecting with audiences, creative collaboration, and financial speculation.

2.1 Manufacturing Ownership

The most common critique of non-fungible tokens (NFTs) is that anyone can 'right click and save' the file or code. While it is true that the work associated with an NFT can be replicated by anyone who wants to enjoy it, only the buyer can claim they have the artist's certificate of authenticity. As such, NFTs are an innovation in collecting and arts patronage.

An NFT is typically a certificate that points to where an artist's work is located (see Part 1 section 1.3). In some cases, the work is contained in the NFT itself as lines of code (for instance, an SVG string) that will be displayed when read by the right interface. In both cases, what is valued is the creativity that can be assigned to an artist (or collaborating artists) who produced the work. The buyer is purchasing the artist's affirmation of having come up with and executed the work rather than exclusive access to or experience of the output.

For buyers, an NFT provides an emotional attachment derived from ownership. It also provides a means to speculate on the value that others will assign to ownership in the future. Both needs are met through scarcity, which the artist can set through the technical task of minting NFT tokens.

Oshi Gallery owner GT Sewell described how he came to re-think ownership through NFTs:

> *I started out as a street artist because of my rebellious nature … I love that aspect of just giving up your art to the world … but it's always nice, if someone appreciates your work, that they then spend their 'hard earned' … I used to laugh off digital art solely because of the ownership thing. I knew it was a cool piece of art, but I didn't feel like I owned it. CryptoKitties[1] brought that lightbulb moment.* (Sewell, interview)

***Lost Tablets* (Jan van Schaik)**

Melbourne-based artist and architect Jan van Schaik is exploring where the value of art resides through a project that combines physical sculptures and NFTs. *Lost Tablets* (Figure 2.1) began as a series of sculptures made of Lego, each of which explores "the recognisability of the geometric language of architecture" (van Schaik, 2022, p. v). When he commenced the project in 2019, van Schaik did not envision he would end up producing an NFT series associated with the work. It was a fortuitous coincidence that *Lost Tablets* is a series of 100 unique sculptures (some still to be made) in the same language, which fits with the typical 'one of x (number)' that NFT collections often follow. He was not aware that the composable components of blockchain software are often referred to as 'blockchain Legos'. He selected the material from which the sculptures are made – Lego bricks – because it is a "prosaic material" that anyone can construct with. As van Schaik explains, "the art content of the objects is in the composition of them, and the idea of them. And less in the art of the making" (van Schaik, interview). The *Lost Tablets* sculptures encourage the audience to think about where the value of the art lies, as do the NFTs.

[1] *CryptoKitties* is an Ethereum-based game which allows players to purchase, breed, and sell virtual cats.

As the sculpture series was already partially complete and sold when van Schaik decided to create the NFTs, he decided it was appropriate to gift the NFT associated with a sculpture that had already been sold to its owner. The owner would need to send an Ethereum wallet address to *Lost Tablets* in order to receive the NFT. The project therefore provides a useful snapshot into the willingness of buyers to engage in NFTs. Of the 34 works that had been sold, 20 of the associated NFTs were taken up by the deadline. Those that were not taken up were mostly associated with sculptures that had been sold through galleries. Even buyers with low technical skills were able to establish a wallet with assistance from van Schaik and his assistant Ned Shannon, who created an instruction sheet. While the *Lost Tablets* project only provides insight into the reaction of traditional art buyers to NFTs when the NFT is associated with a work the buyer has already invested in, it shows that the technical requirements may not be a barrier for most buyers if some basic support is offered. We discuss such education practices further in Part 3 section 3.4.3.

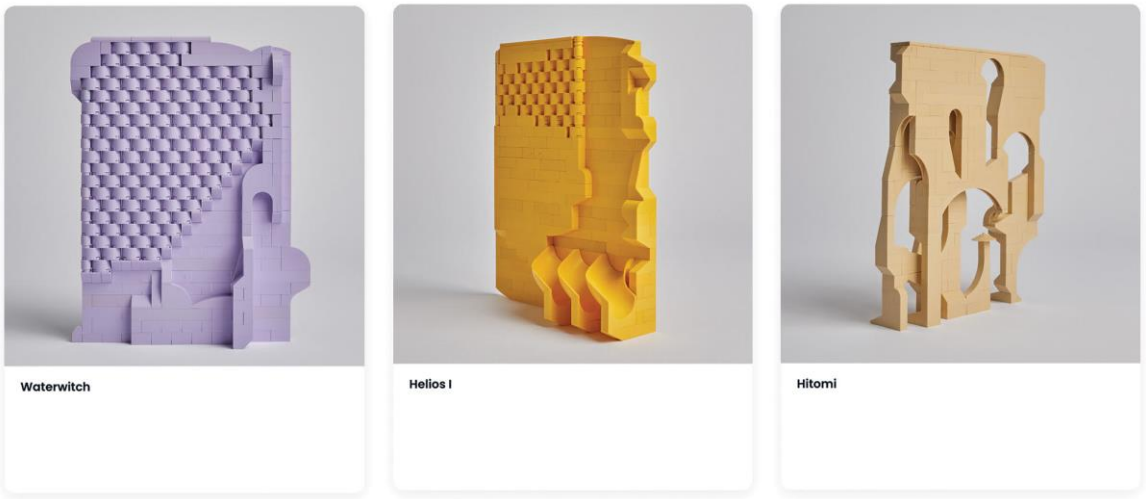

Figure 2.1: Three of van Schaik's Lost Tablets*. Image courtesy of Jan van Schaik*

To new media artist Mitchell F. Chan (2021), generative NFTs are like a Sol LeWitt *Wall Drawing*. In the late 1960s and early 1970s, conceptual artist LeWitt sold works as a set of instructions for how to produce the artwork. The instructions for *work #260A* read: "On blue walls, all two-part combinations of white arcs from corners and sides, and white straight, not straight, and broken lines within a 36-inch (90 cm) grid" (Mass MOCA, n.d., para. 21). The gallery displaying the work could follow the instructions and produce a rendition of the work for audiences to look at, but what was being sold was a certificate with instructions that LeWitt conceived of as the work (Chan, 2021; see also Irvin, 2022). Chan (2021, para. 4) writes that, in the same way, NFTs "separate an artwork's expressive, or artistic form, from its commodity form". In other words, the displayed form from is separated from the owned form.

Chan makes this point specifically in relation to web3 generative art, where an algorithm produces a series of artworks that are sold as NFTs. However, the same principle of ownership applies to NFTs of 'one of one' visual artworks or music. For instance, van Schaik's *Lost Tablets* was always intended to make the audience aware that the value of the art is not the value of its material. The idea that an artwork can be unique and digital is also challenging unless you can separate the value of art from the material form, as NFTs do.

Digital artist Rhea Myers describes NFTs as the "pure art of ownership, but sometimes there are little illustrations to go with it" (Myers in conversation with Wark in Droitcour, 2022, para. 59). She points out that "Everyone knows that's how the art world already works, but it comes with

cumbersome objects that require special handling. NFTs do away with that and just leave a pure system of provenance" (para. 59).

As researchers focused on empirical examination of the uses of technology, we leave it to art critics to trace the pre-history of NFTs back through conceptual art movements. Our observation is that collectors are comfortable with the separation and the new possibilities it offers (as discussed in later Parts). As a result, artists are getting paid for conceptual art, new media art, and other forms that did not previously fit well within existing art markets. NFTs are even providing income for artists working in ways that defy existing systems of copyright, such as generative art pieces (see Part 5).

Further innovation is seen in music NFTs, where creative practitioners are prioritising collection and ownership over restricted access, typically achieved through digital rights management technologies (DRM). During an interview, Richie O'Gorman aka Ghostagent commented:

> *A lot of people come from the idea with music going, "Yeah, I'm going to give this a limited release, and only these people can listen to it." It's a downloadable, unlockable file. A DRM approach, and I don't think that's the solution. That's not the solution.* (O'Gorman, interview).

With many music NFTs, the song remains available to listen to through streaming services. The buyer of the NFT, however, can show ownership and therefore engage in the activity of collecting (spinz808.eth, 2022). Music NFTs are intended to appeal to super-fans or music aficionados who see collecting as an expression of taste or subcultural affiliation (Sean Gardner, interview). In this sense, the NFT plays a similar role to vinyl records, providing enjoyment through accrual of the work and the development of a collection that signifies the owner's aesthetic taste (Gardner, interview).

What is distinctive about NFT art markets is that the wallets of buyers are easy to trace, providing tools for investors to predict which projects may increase in value based on who is buying them. While being in the collection of a well-known gallery or private collection will lift the status of an artist, the traceability and visibility of digital wallets means that tracking these movements can be easily automated. Nansen.ai, for instance, provides access to top wallets to follow and charts them to show the financial performance of projects (e.g., Choe, 2022).

Financial speculation associated with NFTs is perhaps more challenging for the music sector where the vast majority of revenue is derived for access and experiences that cannot be sold in secondary markets. Activities like wash trading – in which an investor buys and sells the same asset to conflate the price – existed in visual art markets before NFTs, as was the case with abstract art in the 1980s (dubbed "zombie formalism" by Robinson (2014, para. 6)). These strategies have become more sophisticated through decentralised finance, such as the case of *CryptoPunk 9998*, which 'sold' for over USD$500million. The transaction on the blockchain shows that the sale was executed through a loan that the owner used to sell the Punk back to themselves. As the entire transaction was viewable on the blockchain, it's likely the action was done to prove a point rather than deceive future buyers. The technical feat was itself turned into an NFT with the description "This is the most powerful display of conceptual or performance art recorded and viewable via a block explorer to date" (Foundation, 2021, para. 3). It's likely that NFTs whose contracts include a return to the artist at every sale are less vulnerable to wash trading.

2.2 Metadata, Metalabels, and Micro (song) DAOs

In 2019, Rennie, Potts, and Pochesneva wrote that without efforts to coordinate practitioners and stakeholders, including shared digital infrastructures and open standards, the benefits of blockchain for the creative industries might never be realised. Since then, developers have worked to expand the ways NFTs and other tokens can be used across a blockchain ecosystem, and these technical improvements are beginning to be accepted by marketplaces and platforms, such as NFT tokens for resale royalties (see Part 5) and NFT rentals. We have also seen the emergence of composable systems, meaning software components from one software application

being able to talk to or be used within others. These technical developments towards openness and interoperability are important for innovation.

However, some challenges in the creative industries cannot be addressed through technology alone, including inconsistencies in metadata, opaque deals between large entities and platforms, and regulatory structures. The music industry is complex and discrepancies and gaps in metadata (data about songs) are common. When these occur, unattributable royalties accrue in the accounts of collecting societies, which are eventually paid out in ways that favour the major players, with some artists receiving nothing while others (or their labels) get paid twice (see Hesmondhalgh et al., 2021). As the UK's inquiry into streaming services found, there is consensus across the music industry "that issues with the metadata are a significant challenge to efficient and correct rightsholder remuneration" (House of Commons: Digital, Culture, Media and Sport Committee, 2019, p. 50).

Attempts to address the problem of metadata and remuneration through blockchain-enabled royalties platforms are continuing (for instance Copyright Delta (n.d.)). These are more likely to succeed if coordination problems in the broader industry are addressed, such as the need to ensure that metadata is up-to-date and resolving rights disputes when they arise. Some pioneers such as Envoke (discussed further below) have turned their attention to assisting artists and those who support them to take control of metadata from the point of creation. Others have chosen instead to 'exit' industry models that favour larger players, forming artist collectives using Decentralised Autonomous Organisations (DAOs) to automate some of their governance and administration needs.

MODA DAO

DAOs can be used for coordination in the development of standards and models that benefit everyone. Depending on their structure and openness, they can make it easy for those who might compete to come together to make decisions and align on best practice.

One example of this is MODA DAO, which was founded by the MODA Foundation, an Australian-based limited liability company with a not-for-profit mandate. MODA DAO's intention is to help in building an "infinitely sustainable web3 music industry ecosystem that offers and replaces the benefits of the legacy industry, within an autonomous, fair and transparent environment" (Mogis, 2021, p. 36).

Co-founder Sean Gardner (also of Emanate) explained to us that a DAO was necessary as people want to know "what's in it for you" when undertaking developmental activities that are intended to benefit everyone:

> *[B]y creating a DAO and having all the members as token holders and setting that up on a non-profit foundation, we're able to just go and have open, collaborative, transparent conversations with people that want to move into this space and are building things* (Gardner, interview).

In June 2022 MODA DAO launched a provenance fingerprinting technology for NFTs. Each *Genesis Audio* NFT contains metadata, "recording each composition's unique origins as a distinct recording" (MODA DAO, 2022, para. 4). A visualisation of the encoded data accompanies the NFT. The metadata structure is stored as updatable files in IPFS (see Part 1 section 1.3) and is connected to the NFT via the token (uniform resource identifier (URI)) description.

While it is not a full web3 music metadata standard yet, the updatability will hopefully encourage artists to use it knowing they can update to a new standard if and when that arrives (Gardner, interview). The NFT is compatible with the Ethereum Virtual Machine and is currently being built for the Ethereum and Polygon networks, with integration into Emanate.

MODA DAO hopes that one day "our provenance fingerprinting technology could crawl all available content and bridge this data with other similar platforms so that eventually immutable audit trails can be enabled. Turning this to geolocated activity that surrounds music usage will be a project for the future" (Mogis, 2021, p. 19).

DAOs can be used for what Yancey Strickler calls a "metalabel" (Strickler, 2022, para. 1). These are groups with a common identity that come together to create works, forming a "release club". Metalabels are defined by a core purpose, involve a squad of collaborators, commit to public releases, and have rules for participation. Metalabels are "startups and institutions for culture" that enable "creativity in multiplayer mode" (Strickler, 2022, para. 37).

For instance, the web3 music collective SongCamp involves groups of musicians who come together and collaborate on a collection of songs. The third camp, which they called Chaos, involved 45 musicians collaborating on 45 songs, created over a three-week period. The songs were sold in packs of four randomly selected song NFTs and each song was assigned a different level of rarity. In addition to experimenting with the notion of collectibles, Chaos used a DAO to coordinate the contributions and rewards of the 45 members. Members indicated their own contributions and rated each other's contributions to the DAO using a tool called Coordinape (intentionally holding back 10% so that those who do less visible work or who are not as willing to spruik their own contributions were still rewarded). Grasmayer and Hu (2022, para. 45) write that for Songcamp "experimenting with the economics of art was not only a freeing creative ingredient but was also a necessary step in establishing trust and encoding values into practice, both for participants and for their supporters" (emphasis removed).

DAOs can also be formed at the level of an individual artistic creation. An example of this is Song That Owns Itself (STOI), which is led by George Howard of the Berkeley College of Music. A STOI is a smart contract that can be used by those involved in the creation of a song to form a DAO which disperses income from the song to those in the DAO. Aside from assigning song tokens to themselves and the production team, the song creators might also choose to put aside a portion of the shares for transferring to fans. The project hopes that through this, a "larger recalculation of the value of songs, the concept of ownership, funding, remuneration, and coordination between creators and their consumers, licensors, and fans can take place" (Howard et al., n.d., p. 5). Those who make a song popular can have a stake in a song and be rewarded for activities that promote it and that can be traced through web3 environments. Profits flow to those who are most invested in the success of the song, reducing the need to sign over rights to labels and publishers. As a result, "ownership is no longer about the assignment of exclusive, normative rights, but about derivation of personal meaning" (Howard et al., n.d., p. 2).

It is important to note that DAOs don't negate the need for artists to understand and manage metadata. In fact, the examples above require a willingness to engage in the mechanics of royalties and distributions, even when used to bypass industry and platform backroom deals. In the process of doing so, artists are rethinking where value is generated and who should be rewarded.

Envoke

Merida Sussex has been involved in the music industry as a successful musician (Paradise Motel), the founder of an independent record label (Stolen Recordings) and a board member of an international industry association (Merlin). Merida and her chief collaborator Peter Harris initially set out to create a single source of truth, “a blockchain solution to registering and communicating music rights and metadata”, which they named Envoke. As part of her entrepreneurial process, Merida has been interviewing people who create music metadata, including musicians and those working for labels, publishers, distributors and collecting societies as well as managers (co-author Rennie has been observing these interviews).

Sussex found that there are multiple parties involved in the creation of metadata (within and across companies) and no unified agreement on how to implement or work with the existing standards. A comprehensive response (such as the DDEX standards) can be too complex for an unsigned musician or smaller label to engage with. This favours larger companies with greater administrative capacity. Moreover, disconnects and gaps can occur at the creation of a song (getting artists/producers/managers to identify contributors to a track, for instance), onboarding an existing catalogue, having multiple processes for communicating the same data (resulting in duplicates and mistakes), or how digital service providers (DSPs) receive/use information and from whom.

Knowledge about why metadata matters does not often reach artists, and often neither does the metadata itself, which results in financial disempowerment. The conversations between Merida and artists typically ended up with her answering questions as they began to grasp the importance of metadata and how little they knew. One interviewee commented: “[I]t’s a bit of a kick in the pants for me, having this discussion with you, because obviously metadata is being thought of in this quite professional, formal way … as if it’s an NFT”.

While Sussex still sees the need for platforms, she has shifted her focus to the governance of metadata and educating artists in how to collect and retain their metadata. The particular governance problems that Envoke is concerned with include resolving inconsistencies and disputes in metadata and finding mechanisms (including incentives) that empower outsiders (musicians, small labels) to coordinate to minimise the opportunism of insiders (major labels). The power of the technology lies in coordination. To get that right, artists need to know the value of metadata and the tools to manage it. Envoke is therefore commencing with tools that enable artists to generate metadata from the point of creation.

2.3 Festivals and LARPing

Web3 online environments can involve token gateways, whereby a user connects a wallet to gain access to online forums or experiences, and only those with an NFT from a particular collection are granted access. Some commentators have likened these to nightclub medallions for online environments. To critics this is reinventing elite, anti-democratic aspects of the artworld (Rivers Ryan, 2021). When it comes to visual NFTs, gateways are more likely to occur within profile picture (PFP) NFT communities or with brands who deploy tactics of status and exclusivity. Music platforms such as Emanate and Royal.io are designed so that musicians can offer NFT owners exclusive content, early access to future releases, and even studio sessions with the artists.

Communities of affiliation and taste can form around NFT projects even without the technicalities of token gateways. Those who use PFPs on a Twitter account become the collective voice of that community (Punk 6529 in Shin, 2022). Event-based experiences are common for major PFP projects–festivals, gigs and dance parties that might involve elements of cosplay. Local meetups for people who hold an NFT in a collection are common, as well as events where people who wish to learn and discuss NFTs more generally. In these examples, the so-called 'metaverse' is here, but it is happening IRL or in web2.0 platforms like Discord.

A cynical reading is that those who are invested in a collection are motivated to keep the 'community' active to maintain the value of their NFT. Participating in channels, offering new content and events to keep momentum around a project perpetuates the market for potential buyers. Or it may be that the constant need to produce content and sustain an audience is the latest rendition of the social media content industry (such as YouTube stars) who are under pressure to keep the attention of fans to maintain revenue streams (as described in Healy, 2022). For artists who may be making resale royalties on an NFT collection, sustained interest from a community is a good thing; demand will result in revenue each time an NFT changes hands.

Where cultures and subcultures have always created economic value through the selective choices of an 'in' group, that value has generally flowed to others who are able to recognise and leverage it (venues, marketing companies, fashion labels, etc). With NFT communities, creators are also able to set in motion micro-economies that reward artists and those who directly support, promote, and extend on that cultural artefact. These are an evolution of social network markets whereby invention and innovation occur through "the sociocultural processing of uncertainty through harnessing the distributed knowledge of others" (Potts & Hartley, 2015, p. 4).

2.4 Infrastructures for the Metaverse

Ownership and collecting take on a different dimension in the field of games. NFTs enable true possession of game items that a player has earned. As Kieran Warwick of Illuvium points out, gamers have wanted ownership for decades. In games such as *World of Warcraft*, "you've had people that spent hours and hours grinding in a game and that has created a value … The more missions you do the more you earn. You can sell loot and buy weapon or skin … Where that breaks down is you can't sell it to another player or for real world value". The terms of service of most game companies prohibit players from trading (Kim, 2022). Instead, some gamers who want to acquire an item or character in exchange for money decide to meet other gamers face-to-face, which can be arduous and risky. In web3, exchange is made safe through smart contracts.

The ability to own items is not the same as 'play to earn'. Web3 games like *Axie Infinity* and *STEPN* reached a high level of usage as players realised they could make money by selling NFTs that were acquired through the game play. *Axie Infinity's* daily revenue dropped from around USD$17million in August 2021 to $10,000 almost a year later (Eleje, 2022). Analysts have attributed the collapse to the game's inflationary economics (players were incentivised to breed Axies until the entire market was saturated). While some may have been motivated by play, many others were playing for livelihood, meaning they were not spending inside the game but withdrawing value from it. With web3 games, designers need to understand and manage the economy of the game, which means ensuring enough people are willing to stay, play, and pay.

Illuvium

Kieran Warwick is the co-founder of *Illuvium* (Figure 2.2), an Australian web3 AAA game currently in development. When we spoke to him in July 2022, *Illuvium* had 11,000 players in the beta version (2 million people had signed up for it, but they needed to restrict access). The term AAA describes "blockbuster" games with high production values and advanced gameplay. Warwick points out that web3 games are only 3-4 years old, which is the minimum time that it takes to build a AAA game. As there have been no AAA web3 games to date, it is difficult to

know whether their arrival will put pressure on other games to move to web3 technology and enable real ownership of game assets across the games industry.

He told us, “at the end of the day, people are playing to have fun. Web3 offers things that make that better, including ownership, transferring assets, and potentially earning money. However, all this is ancillary to a core aim of a gamer which is to have fun. AAA games have most fun with the largest players”.

Illuvium has implemented various features to ensure sustainability, including deflationary mechanics such as characters becoming obsolete every six months. The game is structured so that there are two modes of play – one being a city-builder game (like *Minecraft*) and the other about capturing Illuvials (like *Pokemon*). These support each other so that those who build generate fuel that they can use for their cities, or which they can sell to those who need resources in the overworld to capture Illuvials. In 2022, *Illuvium* conducted its first successful land sale, where players could buy plots of land that they may rent or sell.

When asked why many gamers are ‘against’ web3 games, Warwick attributed it to the massive interest in web3 games from venture capitalists, which is directing money away from non-web3 games developers: “We are in a unique situation where 1% of gamers understand web3 and 99% listen to their favourite developer who can’t get funding anymore”. He believes this will only change when players get to experience truly fun games where they also get to own and sell their assets in a marketplace that connects to the external economy.

Figure 2.2: In-game still of Illuvium*. Image courtesy of* Illuvium

Web3 virtual worlds such as *Decentraland* and *Voxels* also sell plots of virtual land that can be built out. The extent to which these virtual worlds allow people to move assets between worlds and games, and for ownership and exchange to occur without high fees, will differentiate them from the commercial Metaverse being built by Meta. In April 2022 Meta announced that 47.5% of NFTs sales in its Metaverse will flow back to the company (Shead, 2022).

Exhibitions within web3 virtual domains are becoming common (Valeonti et al., 2021; Weber, 2022). O'Gorman (aka GhostAgent) described his experience with *Voxels*:

> *Once you've logged in through your web3 wallet there are tools in the game. You can build. You can own a part of the world – the metaverse – by buying an NFT, and that defines the area that you can build in. That's your virtual property; you'll have an address … It's a 3D website. Once you're on that you can build on it and you can import voxel models and build immersive experiences in there…It's got a great community because it was early and a lot of artists liked it because of the tools you can build … And then you can put your artwork in there, build a gallery. There's a community of creators within that* (O'Gorman, interview).

Other examples include the Russian State Hermitage Museum's *The Ethereal Aether*, launched in 2021, an entirely digital exhibition in which 38 NFTs were displayed within a digital construction of the museum called the Celestial Hermitage (Castrovilli, 2021). Later this year, in tandem with their physical installation at Art Basel Paris, and in collaboration with dslcollection and V-Art, Ukraine will launch a VR iteration in the metaverse (Chen, 2022). If augmented reality reaches widespread adoption, it is possible that NFTs could be encountered in much the same way as physical artworks are in offices, public spaces, and homes. For now, the appreciation and consumption of NFTs is largely via web3 interfaces that connect to wallets and display the contents of a wallet.

2.5 Network Scams, Rug Pulls, and Hoaxes

Crypto is a honeypot for scammers due to the value that is stored in digital wallets. The Australian Competition and Consumer Commission (ACCC) reports that between 1 January and 1 May 2022, Australians lost $113 million to crypto currency scams although the actual amount is estimated to be higher as the data is based on reports made to its scam reporting service, Scamwatch (Australian Competition and Consumer Commission, 2022). Many scams related to NFTs involve the same tactics as used in other online contexts, such as phishing scams (where people are sent emails or text messages that are designed to look like legitimate correspondence from a bank, credit card provider or online shopping service and trick them into clicking a link).

Other than these clear instances of theft, NFT buyers have been vulnerable to what are known as 'rug pulls' and 'exit scams', whereby an individual or team launches a project with promises of future benefits and then fails to deliver on that promise, walking away with the funds received and leaving those who purchased the asset with a worthless token. As discussed in Part 5, consumer protection laws are likely to apply if buyers have been, or are likely to be, misled or deceived. However, it can be difficult to discern an intentional rug pull from a project that simply used its initial raise of investment poorly (like any other failed business). Some projects have even achieved meme status for underwhelming delivery such as the web3 game project *Pixelmon*, which raised over USD$70 million, only to release an NFT of character Kevin that was far inferior to what buyers expected from the project (yyctrader, 2022). Kevin was so bad he became a sought-after NFT.

Scholar Lana Swartz (2022) has theorised the 2017 crypto bubble of initial coin offerings as a 'networked scam'. She draws on Herman Melville's 1857 book *The Confidence Man*, in which all characters in the novel are attempting to scam each other. In a network scam, like in Melville's novel, there is no one scammer, but rather an economy in which everyone is a con artist. Swartz theorises that the ICO bubble was "a collaborative effort to bring about a shared future" but where there was "an uneven belief among participants in that future ever coming to pass" (2022, p. 1696). Capitalism itself is a confidence game, but crypto adds beliefs and hopes for the future into the mix, which blurs the lines between what is legitimate and illegitimate. With NFTs, expectations of future value drive speculation in a similar way to other crypto assets. However, if NFTs are a 'networked scam' then at least some of the players – mostly coders – also consider the art world to be the scam.

Mimicus Etheriensis

A mimic is an NFT that can transform to look like any other NFT that conforms to the ERC721 or ERC1511 standards. A developer who goes by the pseudonym of the Guildmaster Fuzzleblot (GF) created the (open source) codebase for the mimic project. At a technical level NFTs have two main areas of functionality. One is around ownership and transferring the NFT. GF explained in an interview that this part of the NFT "is protected, safe and rock solid". The second part is for displaying data – the NFT's name, what it looks like, how it sounds. Generally, only websites would access that, but in the case of mimics, the mimic contract accesses that itself. When a website asks the mimic what it looks like, it asks another NFT 'what do you look like?' and then relays that back to the website.

GF has also built the codebase so that a mimic token holder can perform what is called a 'rite', the result of which is that only that one mimic can access an NFT's data. For instance, if you were to set your mimic to Beeple's famous *The First 5000 Days* NFT and perform the rite, any other mimic doing the same would revert and not show Beeple's work (we don't recommend doing this. See Part 5).

NFT creators can guard against their NFTs being mimicked through a 'message.sender' function. Using this function, your NFT could check to see whether it's a contract or an end user website that's asking for your information and reject contracts (including mimics) from being able to receive it. GF said that you could also set it so that your NFT sends an alternate payload: "You could send them Rick Astley doing a dance as the NFT and that's what the mimic would end up looking like. Whereas if a website asked for your data, you give them the real data. So there are some tricks you can do". However, he's not aware of anyone implementing such code to date.

When asked why he set out to create mimics, GF replied that it is intended to "separate out the wheat from the chaff" by drawing attention to how NFTs work and potentially drawing focus to parts of the standard that could be improved. In his view, many NFTs are "half-hearted or permutations of a concept". At some point people will realise "that's not that useful and it's not even that fun if they are not actually genuinely interesting pieces of art. And I think my hope is that mimics speed up and accelerate that process of people realising that NFTs can be great but not all NFTs are great. Just grabbing things and flipping them – I don't think it's sustainable in the long term" (Guildmaster Fuzzleblot, interview). He added that mimics have a novelty value of their own by making us think about where NFTs derive their value from. In that respect, mimics are themselves art.

Part 2 Summary

The use of blockchain technology by creative practitioners shows that technologies designed for one purpose can be taken up by another group, producing unexpected outcomes. Creative practitioners have taken tools that first appeared in the context of finance and repurposed them to address gaps and problems in the creative economy. This includes questioning the very notion of what it means to own art (what you are paying for); giving those who 'earn' within games power over their assets; providing ready-made governance tools that help artists to work together; and strengthening the connection between musicians and their fans.

Disclaimer

The contents of this report, including Part 5, are not legal advice and should not be considered as such.

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