

## Chapter 12

### **Decentralised creative economies and transactional creative communities: new value discovery in the performing arts**

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While the past decade has seen cuts to public funding to the arts, it has also seen the development of online technologies which have the potential to reach increasingly diverse and global audiences. As a result, individuals and organisations across the creative industries and performing arts have experimented and embraced more diverse, innovative, and direct approaches to engage and monetise tangible support from their audiences and communities. Jon Swords (2017) identified the evolution of crowdfunding in the arts as a form of ‘crowd-patronage’ – where platforms such as Patreon and Kickstarter function as new intermediaries that can radically reconfigure how and why creative work is funded. The ‘pivot to digital’ – which brought audiences and creative workers together in new online spaces throughout the pandemic – further reinforced the potential for direct communication and financial support from audiences of creative work. This chapter will reflect on how contemporary data-driven, monetary technologies have begun to decentralise how creative work is valued, supported, and paid for, with a particular focus on the performing arts.

We examine the new frontiers for such ‘transactional communities’ (Swartz, 2020), reflecting on our own fieldwork and case studies in the so-called ‘Creator Economy’ in order to surface their impact upon creative transactions and new forms for the valuation of creative work. These include novel ‘creative transactions’ on Twitch (Elsden and Speed, 2022), where livestreamers, including DJs, poets, comedians and many more, leverage a rich suite of highly situated, and data-driven monetisation tools to support their practice. Beyond these platform economies, we consider the hype and future promises of ‘Web3’ – where audiences may not only pay to support, but might invest, own, hold a stake in, and direct creative communities themselves, through distributed ledger technologies, such as NFTs (non-fungible tokens). We consider the implications of a more distributed, automated, data-driven, and audience-led landscape for funding and paying for creative work, and suggest how individual freelancers, creative organisations and institutions can respond and benefit from the challenges and opportunities these decentralised creative economies represent.

## Introduction

The valuation of creative and cultural work is a subject of enduring academic interest. Philosophically, valuing creative and cultural activities intrigues, as it seems to distil and spotlight tensions between essential human and societal values, and economic value. Individual artists face perpetual questions about whether to prioritise lone, esoteric creativity, or to ‘sell out’ and seek commercially viable iterations of their practice. As a marketplace, valuation remains constantly in flux, due to the diversity and uncertainty of creative output (Caves, 2000). Managing this uncertainty requires centralised and institutional actors (e.g. fairs, venues, awards organisations, reviewers, professional bodies) which traditionally hold curatorial power in determining the reputation, worth and ultimately economic value of new creative work (Moeran and Pedersen, 2011).

As with many other sectors, there have been efforts to artfully account for the value(s) of the creative industries, beyond raw economic output. In particular, appeals are made to more 'relational' approaches (Josifidis and Lošonc, 2012; Bandelj, Wherry and Zelizer, 2017) - that account for more than simply price, and consider how the economic, social (and, more recently, environmental) are inextricably linked (Zelizer, 1989) in value constellations (Speed and Maxwell, 2015).

Urgent contemporary concerns around economic value in the creative industries have focussed upon the precarity and inequality of creative labour (Brook, O'Brien and Taylor, 2020), something which extends to (and in some cases is exacerbated by) the intermediation of online platforms, and cultural platform work (Duffy, 2017; Nieborg and Poell, 2018). This has spurred studies of the variety of approaches and strategies through which the majority of those working in the creative industries manage to sustain their practice, and ultimately get paid for their work. Elsden et al. take this further still to consider how 'creative transactions' and payments specifically are practically constructed, solicited and enacted (Elsden, Morgan and Speed, 2021; Elsden and Speed, 2022).

In this chapter, we are interested in how valuation practices (Doganova *et al.*, 2014) in the creative and cultural economies in general, but specifically the performing arts, are being impacted through various forms of *decentralised* and *distributed* technologies which are mediated by online platforms and networks. In particular, we address the emergence and promises of the 'creator economy' (Jin, 2020), and its relation to the much vaunted 'Web3' (Voshmgir, 2020). Prior work has looked broadly at the potential implications of blockchains and distributed ledger technologies (DLTs) for artists and the creative sector (O'Dwyer, 2015; Catlow *et al.*, 2017; O'Dair, 2018; Potts and Rennie, 2019). Collectively, these works speak to the disruptive capacity of these specific technologies, their often problematic roots and governance, yet nonetheless offering intriguing alternative economic imaginaries.

For our work, we are especially focused on how digital platforms have broadly facilitated decentralisation, and allow individuals involved in the performing arts and their audiences – to more directly interact and co-create value (Ranjan and Read, 2016). In particular, we examine the relational and community focused turns, in both the 'creator economy' and 'Web3', which offer potential for new, plural, means of valuation and value-creation to come to the fore, allowing for "multiplied relations" (Josifidis and Lošonc, 2012) and challenging the dominant economic prerogative that traditionally binds creative practice and the production of cultural value.

To this end, we consider three closely related, and overlapping case studies of creative transactions in the performance industry. In distinct ways, each examines how individuals and communities can employ digital technologies to interact and transact in decentralised ways, to create and attribute value to creative work. The first is located in the depths of the Covid-19 pandemic, and explores what happens when traditional, centralised 'evaluative infrastructures' (Kornberger, Pflueger and Mouritsen, 2017) (such as box offices and commercial producers) give way, and the subsequent improvisation, innovation and work of individual artists and communities required to replace them. The second looks online, to the growth and success of livestreaming platforms such as *Twitch*, where 'content' is freely and globally accessible, and a new suite of monetisation tools and tactics are provided for

creators to utilise not only for economic, but social ends. Finally, we consider novel applications of ‘non-fungible tokens’ (NFTs) – not simply as a speculative asset, but as means to extend, co-create and share value in a decentralised manner. Together, these case studies demonstrate the various means and implications of decentralisation, as well as indicating ways in which creative practitioners may seek to employ them to engage their audiences.

## Case Study 1 – Paying for Performance in a Pandemic: Edinburgh Festival Fringe 2020 during Covid-19

The restrictions imposed throughout various waves of the Covid-19 pandemic forced the closure of venues, and a scramble to find new ways to connect with audiences online. Alongside all of the technical challenges of streaming a performance across the internet, are profound questions about how such work should be valued and paid for. Without traditional tickets and box offices, many artists and festivals experimented with alternative ‘creative transactions’, ranging from soliciting individual donations, ‘pay what you can or want’ tickets, traditional ticketing, or other kinds of crowdfunding. We interviewed 20 performers, artists and theatre-makers who had planned to perform at the Edinburgh Fringe Festival 2020<sup>1</sup> to understand their experiences of creating, performing, marketing and ultimately taking payment for their work online (Elsden, Piccio, *et al.*, 2021).

The primary hurdle facing artists in this context was a great uncertainty about the value of their practice, and the resulting online performances. In part, this arose from the fundamental novelty of the experience for artists and audiences, but also since centralised actors – like festivals and promoters – were no longer able to offer a cohesive programme or play a selective, curatorial role to assure audiences of certain standards or taste. Secondly, without the traditional festival context in Edinburgh which combines the Fringe Festival, Edinburgh International Festival<sup>2</sup> and the Free Fringe<sup>3</sup>, an online performance, experienced by audiences through a computer or TV screen was suddenly in competition with all and any other kinds of online ‘content’. As one stand-up comic put it: *“How do we, as Fringe artists and Fringe creators produce something that is the same standard as a Netflix special with 1,000 times less the budget?”*

However, even those artists that were able to build and maintain an audience online then faced the challenge of ‘converting’ or ‘monetising’ that interest into a viable income. Artists and venues experimented with a range of approaches, from a traditional set amount, paid-in-advance ticket, to more variable ‘pay-what-you-want’ tickets, or direct solicitation for audience donations and support. Without traditional box-office infrastructure, there were immediate practical challenges of organising payments, with performers and audiences. Here, numerous intermediary platforms, (such as ‘Kofi’<sup>4</sup> ‘Buymeacoffee’<sup>5</sup> or Paypal.me<sup>6</sup>;

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<sup>1</sup> <https://www.edfringe.com/>

<sup>2</sup> <https://www.eif.co.uk/>

<sup>3</sup> <https://freefringe.org.uk/>

<sup>4</sup> <https://ko-fi.com/>

<sup>5</sup> <https://www.buymeacoffee.com/>

<sup>6</sup> <https://www.paypal.com/paypalme/>

came to the fore. Likewise, start-ups such as *Scottie* (detailed in the case study following this chapter) who produce bespoke web and ticketing platforms for creatives, sought to plug this emerging gap. Such platforms illustrate neatly that in the wake of traditional disruption and disintermediation of traditional actors – such as a box-office – there are always opportunities and need for reintermediation with new problems and politics (Langley and Leyshon, 2017). It also illustrates the additional labour placed on performers and audiences for decentralisation to actually work. This labour – where performers are faced with directly seeking, justifying and organising payment for their work is highly demanding (Duffy, 2017; Bonifacio, Hair and Wohn, 2021), however, it also opens the door to a deeper and more direct understanding of one's audience, who can surprise with their capacity to support.

In the era of on-demand streaming platforms, the logic of paying more for a single ticket to an online show than a monthly Netflix subscription broadly gave way. Nonetheless, despite a desire to perform, many feared the implications of 'training' audiences to stream theatrical work for 'free'. Instead, many creatives looked for means to build longer-term and more sustainable, or anticipatory support for their work, via forms of crowd-funding or crowd-patronage (Swords, 2017). Platforms such *Patreon* hence facilitate much more direct relationships between artists and their audiences. For some – this was a daunting expectation to be a regular content provider: *"I worry with Patreon that there is such an expectation that you are going to be constantly putting stuff out. I tend to write one show a year, I don't want to have to write half a show a month for my Patreon subscribers"*.

For others, the potential of serving a consistent audience online was motivating, and encouraged the potential for a new, more engaged relationship with their audience: *"We found that this whole promise of it being content, you know, we'll put content up if you join as a member, and actually that meant there was a motivation for us to continue making that content, as well. And, it also felt more like an artist's community."*

The extent to which subscription platforms alone can provide a sustainable income for entire creative teams and companies, as opposed to only individuals, is still a matter of uncertainty in economic terms. However, these platforms do appear to steer (and require) performers to develop a nuanced understanding of how to strategically create and share diverse content developed from their practice (Elsden, Yu, *et al.*, 2021). Through these direct, ongoing and open-ended interactions with audiences, there is the opportunity to discover new things that audiences value and are willing to pay for.

Our primary observation here is how the diversity and experimentation in new forms of direct audience-to-artist payments fosters particular social relations between creator and audience, making space for the value(s) of a creative practice to be surfaced, reconsidered and renegotiated.

## Case Study 2 - Creative Transactions on Twitch: Livestreaming Economies & Digitizing Valuation

### Creative Transactions on Twitch

Extending the previous case study, we turn to livestreaming platform *Twitch*: a frontier of the 'creator economy' (Jin, 2020). While drawing strongly on the culture and professionalisation of live-streaming and video-content production first academically identified on *Youtube* (Postigo, 2016), Twitch is differentiated by a focus on live, unscripted and long-form 'performance' – not only of video-game streaming, but incorporating all manner of subjects, formats and artistic genres. Notably, Twitch has remained a highly open and adaptable platform that ferments and captures rich and diverse cultures of payment and valuation (Partin, 2019, 2020).

Much prior work has identified the nature of aspirational (and hence often underpaid), creative labour on Twitch (Johnson and Woodcock, 2019; Woodcock and Johnson, 2019), as well as specific interactions that enable 'digital patronage' (Wohn *et al.*, 2019; Bonifacio and Wohn, 2020) and 'digital gifting' (Lee *et al.*, 2019). In particular, emotional attachment, and 'parasocial relationships' with streamers are identified as a key driver of financial support (Wohn, Freeman and McLaughlin, 2018). Feeling emotionally close to streamers, despite the asymmetric nature of the interaction underpins a sense of loyalty leading viewers to continue their patronage and view their financial support as a form of investment in a streamer and a channel.

More broadly, these specific findings resonate with Zelizer's descriptions of the 'social meaning of money' (Zelizer, 1989), where specific kinds of transactions achieve specific kinds of relational work, and vice-versa (specific relations require specific kinds of payment and money). To this end, we have written previously on how the design of various creative transactions on Twitch, are underpinned by data-driven and algorithmic logics, and produce new relations between distributed viewers and streamers (Elsden and Speed, 2022). For this chapter however, we wish to focus especially on the implications of livestreaming economies as an example of distributed and digitised valuation of creative work.

A core dilemma, and indeed the appeal of Twitch, is that content is free-to-access, and extremely open-ended. Viewers have no obligation to pay and can leave at any time. This is a stark contrast to how a traditional, ticketed performance is valued and paid for. In traditional ticket buying, a pre-determined price is decided upon by centralised actors – the artist, venue or promoter – and then charged up-front, for a usually specifically planned performance (known run time, script, setlist, staging etc.) by an act with some known reputation. Instead, the value of any particular channel on Twitch, and any specific livestream is fundamentally always uncertain. It is something to be considered, judged, negotiated and re-evaluated second by second as the viewer chooses to continue to watch (or not), and whether (and how) to offer any support – financial or otherwise. Additional metrics, such as showing the number of concurrent live viewers watching at any moment, equally serve as means by which the stream is evaluated. However, as above, audiences are encouraged to pay to 'support the stream', and to be able participate more directly in the social liveliness, games and communities surrounding a channel.

A compelling example of this includes an automated fundraising drive and ‘channel game’ known as a ‘Hype Train’<sup>7</sup>. In effect, when a certain threshold of financial support has been reached (either through paid channel subscriptions, or one-off tipping) a ‘Hype Train’ is launched. This starts a countdown timer, and encourages viewers to collaboratively fundraise towards a target, offering rewards and recognition to those who give the most. If the goal is reached, the Hype Train continues, and sets a new, higher target. If not, the hype train ends, and the stream returns to normal. Crucially, since it is triggered automatically by the platform (if enabled by the streamer), this solicitation appears organic, and creates an explicit space for financial transactions to be solicited and prioritised during the stream. Furthermore, the game mechanics and temporality of the hype train are entirely dependent on live, visible transactional data – who, pays what, and when. And of course, different streamers ‘play’ the Hype Train in different ways.

Through examples like this, we therefore suggest Twitch offers a mature, accelerated and concentrated version of many of the dynamics we saw in the initial case study, with numerous tools and approaches to decentralisation and monetisation embedded in a single platform and subculture.

## Twitch as a Distributed Evaluative Infrastructure

Twitch, and other livestreaming platforms can be understood as what Kornberger (2017) describes as an *evaluative infrastructure*. In particular, Kornberger emphasises the multiplicity and distribution of *valuation work* (Doganova *et al.*, 2014; Elsdén *et al.*, 2019) that platforms enable, in contrast to more centralised acts of valuation (e.g. setting a ticket price). As such, platforms “*are not singular mediating devices that strive for referentiality between objects and representations. Rather, they are ecologies of interacting devices that generate relations (not references) between people's actions, behaviours, preferences and objects.*” (pp. 84)”

Crucially, Twitch does not singularly attempt to evaluate every channel in a monetary sense (although the most popular streamers and channels are able to enter into more bespoke arrangements with Twitch as *partners*). Instead, the platform creates an infrastructure which prioritises and emphasises certain values – for example liveness, loyalty, community – by which streamers and their audiences can then develop relations and exchange value – from which of course the platform will subsequently extract (Twitch can take up to 50% of the subscription earnings from a channel).

This evaluative infrastructure can be particularly understood through the visibility of metrics used throughout the platform. The most visible and important of these is *concurrent live viewership* – a count of how many people are watching a stream at any moment. This number is often changing, reflecting the liveness of the stream, and showing if the audience is growing or shrinking. The duration of the stream is also prominently displayed. A count of subscribers is not shown by default, however many streamers use overlays to display a subscriber count, and even host specific ‘subathon’ streams where they aim to reach a specific target (e.g. 100 or 1000). Resources from the Twitch Creator Camp encourage

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<sup>7</sup> ([https://help.twitch.tv/s/article/hype-train-guide?language=en\\_US](https://help.twitch.tv/s/article/hype-train-guide?language=en_US))

streamers to reflect frequently on the 'Stream Summary' – after each stream, as well as their overall 'Channel Analytics'<sup>8</sup>. In particular, the stream summary gives a detailed breakdown of audience engagement through an 'activity time graph'.

These and other metrics are also those used by brands and sponsors seeking streamers to advertise and become ambassadors for their products, similar to many other social media platforms (Bishop, 2021). Importantly - most metrics are not actually evaluating the content itself – there are no ratings, or up or downvoting of content for example. Live 'concurrent viewership' is the most apparent indicator of quality and can determine how easily new streams are discovered and recommended. However, this varies greatly across genres.

Partly through the use of metrics, Twitch creates the conditions and opportunity for performance to be valued and remunerated. However, the valuation work that Twitch itself performs is limited to facilitating user discovery, by ordering and presenting channels to the user. The situated work to directly generate economic value and monetise is instead pushed out to individual channels and streamers. The freedom and flexibility afforded to streamers in how to approach monetisation of their performance is important because it allows for very localised and situated negotiation of the value of an unbelievably diverse range of content and experiences – Twitch could not possibly adequately act as a typical cultural intermediary – in the way a festival curator might – to directly set the value of particular channels.

Hence, Twitch supports and provides numerous data-driven monetisation tools to streamers – thereby *distributing valuation work*. Such tools illustrate the growing diversity in *how* audiences can pay and financially support creative work as a transactional community. For streamers, a great deal of care is required to do this appropriately, and inclusively, without the perception of 'selling out'. In various resources and guides, successful Twitch 'Partners' explain the importance of ensuring payments and transactions occur 'organically', where an audience pays to support a stream because they want to, rather than because they feel they have to. In effect, streamers must construct the channel and stream something worth paying for, while at the same time ensuring a fun and inclusive community, regardless of viewers capacity to pay. Indeed, the most successful streamers appear to co-create very localised, framing and situations for transactions to take place with their audiences, producing particular subcultural social relations and capital in the process (Thornton, 1996). For example – one RnB DJ 'BellaFiasco'<sup>9</sup> who streams later in the evening, solicits donations at the same specific time of night (10.34pm), when she invites viewers to collectively take an alcoholic shot with her. '10.34' is then reproduced as a meme, through various communications and chat messages during every stream.

Furthermore, there is a secondary degree of decentralisation. Although streamers construct opportunities for transactions to take place, it is viewers themselves who are also expected to do considerable valuation work, and ultimately conduct evaluative acts, in real-time, as they watch and interact with the stream. We see therefore, while platforms carefully mediate, manipulate and capture value (Partin, 2019), that the actual valuation work is pushed away from a centralised actor, and distributed all the way down through streamers and their channels, to the viewer themselves, as a very live form of crowd-patronage (Swords, 2017).

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<sup>8</sup> <https://www.twitch.tv/creatorcamp/en/level-up/channel-analytics/>

<sup>9</sup> <https://m.twitch.tv/djbellafiasco>

Valuation work (Doganova et al., 2014) is pushed away from a centralised actor, and distributed all the way down through streamers and their channels, to the viewer themselves, as a very live form of crowd-patronage (Swords, 2017).

As such, despite decentralisation on the front-end where value is created and exchanged, it's important to acknowledge the dependence on powerful centralised platforms that remains. Hence in this case study, we see how cloud-based internet platforms enable the distribution and decentralisation of valuation work – but ultimately retain control and extract considerable value as they do so. In our final case study, we consider the potential of much-hyped 'Web3' technologies (Voshmgir, 2020), where the monetisation tools and platforms themselves can be further decentralised, and the implications this has for valuation work.

## Case Study 3: Tokenizing the Creative Economy: NFT Ticketing

### Web3 and the 'Creator Economy'

An underlying concern with Twitch (and most other contemporary internet platforms) is the scope for the platform to unilaterally extract (and abuse) the value co-created laboriously between streamers and their audiences. 'Web3'<sup>10</sup> – where digital infrastructure is built upon distributed ledger technologies (DLTs), with the potential to decentralize the ownership, governance and value capture of web platforms – instead promises *“a decentralized and fair internet where users control their own data, identity and destiny.”* (Web3 Foundation 2023).

Li Jin – a leading venture capitalist in the 'creator economy' (Jin, 2021)– describes the potential opportunities for creatives and online content creators as shifting the balance of power from platforms, to creators and their audiences. In particular, Jin identifies the importance of enabling forms of digital scarcity, and facilitating direct investment and ownership in the success of creative careers and outputs – via 'tokenization' (Voshmgir, 2020). The crux of these arguments is thus: tokens (recorded and governed in a decentralised, trustworthy manner by an underlying blockchain) can be used to assign value(s) to the investment, labour and contributions that participants provide to a particular platform or ecosystem. In addition, they offer means to produce digital scarcity – where access or use of digital applications and media is predicated on possession of a unique token. As such, tokenization could enable alternative economies, recognising new forms of value co-creation and exchange – beyond the dominant 'attention economy' of Web2.0, where users access content for free, while their attention is monetised via the placement and engagement with advertisements (Crogan and Kinsley, 2012).

An early example of ambitious Web3 principles is the social media network 'Steemit' where participation on the platform (posting and engaging with content) is ranked and rewarded via a native token currency (Li and Palanisamy, 2019). In addition, token holders have means to vote, and participate in the governance of the platform. They may also benefit from the growth of the network over time, as new users invest in the Steemit token. In the context of

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<sup>10</sup> <https://web3.foundation/about/>



the ‘creator economy’, numerous ‘Web3’ platforms have sprung up to disintermediate (and subsequently reintermediate) livestreaming, crowdfunding, ticketing, crowd-patronage, and online marketplaces. Key aspirations of these efforts include distributed platform ownership and governance, particular incentive mechanisms via ‘tokenomics’, and the ability to independently create, record and recognise ownership of new digital assets – better known as ‘Non-Fungible Tokens’ or ‘NFTs’.

Much has been written previously on the various imperfect opportunities of blockchain technologies for the creative and cultural industries (O’Dair, 2018; Potts and Rennie, 2019; Patrickson, 2021) but it is the potential applications of NFTs specifically as means to mediate and exchange value that we wish to focus on here. NFTs gained notoriety throughout 2021 as a speculative asset class. Decentralised marketplaces such as OpenSea<sup>11</sup> facilitated a combination of crypto marketing schemes and speculative art auctions leading to astronomical sales of digital artworks and collectibles – in particular digital avatars, such as the ‘Bored Ape Yacht Club’.<sup>12</sup>

However, since the wider collapse of crypto markets, attention has returned to the more fundamental nature of NFTs as means to programmatically define, assign and share scarce digital assets (O’Dwyer, 2020). Essentially, tokens can be designed and programmed to work in very specific ways. For example, tokens might be non-transferable, or expire after a certain time, or only be able to be traded between certain actors. In addition, these tokens may contain specific data, often referencing particular media or assets, in such a way that they can be used to designate ownership and enable particular rights and actions. Based on a tamper-resistant and publicly visible distributed ledger, tokens can also be used to track provenance – and to show exactly how and when tokens (and related media or assets) were created, and subsequently exchanged between various parties. The envisioning of NFTs as a new decentralised infrastructure for *ticketing* offers an instructive case study to consider some of the practical applications of these mechanics.

## NFT Ticketing

Tickets sold for a show or live event can already be understood as a form of token. They are often non-fungible (each ticket is unique, and can’t be equally exchanged for another), and provide the holder means to demonstrate and enact certain rights, such as accessing a venue. Contemporary ticketing faces several well-documented challenges: preventing the sale of ‘fake’ tickets; ‘touting’ and ‘scalping’ through excessive secondary markets (where tickets are resold for astronomical sums); the static and limited single-use of tickets; and challenges of integrating and sharing ticketing data between artists, venues, and promoters.

NFTs are envisaged as offering potential solutions to these challenges, in addition to enabling other decentralised applications. To explore this, in 2022, we collected web content and promotional materials from more than 40 NFT ticketing applications and start-ups, to analyse the key features being proposed for NFT ticketing, and to consider the wider implications of decentralised ticketing infrastructures.

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<sup>11</sup> <https://opensea.io/>

<sup>12</sup> <https://boredapeyachtclub.com/#/>

Primarily, these companies sought to draw upon the provenance and immutability of a distributed ledger as means to manage the whole ticket life-cycle, from the moment a ticket is created, through to its sale, use at an event, and even afterwards as a souvenir or proof-of-attendance. A ticket – normally a token of, or reference to, a contract between a venue and audience member – can become a decentralised, digital asset. However, there is much variation in how specific companies ultimately seek to apply core blockchain capabilities, depending often on the particular market or context that they are prioritising.

Some companies envision NFT ticketing for online and metaverse streaming experiences; others position services for promoters and event organisers, some seek to integrate with existing large ticketing infrastructures and standards; while others are situated entirely in a Web3 paradigm and focused upon facilitating ‘token-gating’ – providing ticketing services built upon existing NFT collections and applications.

Across these contexts, a set of recurrent features are promised, and predicated on specific aspects of distributed ledger technologies. Drawing primarily on the affordances of DLTs to support immutability and provenance of digital objects (as in other supply chains (Rogerson and Parry, 2020)), the primary use case is to prevent the use and exchange of fraudulent tickets and set particular terms and conditions about their resale in secondary markets. For example, ticket resale might be fixed at the original price, or royalties can be automatically passed on to the original artist or venue for each resale. Through smart contracts – immutable, executable code, secured in a distributed ledger (Levy, 2017) – these tickets can hence become programmable and act in automated and autonomous ways. Tickets might be switched ‘on’ and ‘off’, up or downgraded to grant additional rights, have dynamic value, or be able to interact with other digital infrastructures. In addition, one might be able to independently prove the ticket was used, and demonstrate ‘proof-of-attendance’, for some future benefit or reward. Aligned with other popular NFT projects, unique digital media can be packaged and related to the ticket, to serve as a form of collectible item.

As ever with blockchain-based technologies, the reality of implementation rarely matches the hype, and it is challenging to evaluate the success and feasibility of many of these proposed applications yet at scale. In addition, we see varying degrees of decentralisation, and several points where these systems are required to interact with centralised, and physical infrastructures in the real-world – often undercutting claims about the decentralised and ‘trustless’ nature of distributed ledger technologies in isolation. Indeed, it is notable that potentially the most successful implementation of an NFT ticketing application for large concerts at Wembley Stadium<sup>13</sup> has been delivered by an existing large, centralised ticket provider (Secutix)<sup>14</sup>.

However, crucially, most of these proposals position the ticket as an open and independent platform for audience and fan engagement, before, during and after the primary live experience. They also imply a high degree of data collection and analytics, in an anonymous, but highly shareable way. Furthermore, as decentralised media, in most cases,

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<sup>13</sup> <https://www.ledgerinsights.com/uks-wembley-stadium-adopts-blockchain-ticketing-tixngo-starting-with-sheeran-concert/>

<sup>14</sup> <https://www.secutix.com/tixngo>

the ticket issuer or venue no longer holds a monopoly on the data, or ability to validate a ticket. Hence, an individual ticket-holder could easily prove the authenticity of their ticket to anyone else; and other service providers such as taxis, hotels, other event promoters, and other artists could reliably identify, check and offer new services to ticket-holders of an upcoming, or past event. Likewise, the artist or venue themselves issuing the ticket can theoretically maintain, trace and build ongoing relationships with any ticket holder without depending on a specific platform or institution. Ticket-holders may hence be part of an ongoing transactional community - with social and economic relationships with each other long after the performance itself.

These propositions come laden with caveats and critique about their implementation in practice, and associated concerns around data protection and ethics, accessibility and ease of use, alongside the responsible innovation of any new technology. And, as ever, while clearly disintermediating some problematic aspects of centralised ticket ecosystems, we should question how new intermediaries would develop and be sustained ethically and financially in a decentralised system. However, this emerging area offers a helpful sketch of how NFTs, and 'Web3' could enable new creative transactions and valuation.

## Conclusion

Taken together, these three case studies aim to unpack how various forms of decentralisation and ultimately distributed technologies can impact upon creative transactions (Elsden, Morgan and Speed, 2021), and the valuation of creative work. Initially, we described how artists experimented and evolved their approach to payments and valuation when traditional, centralised infrastructures receded or collapsed during the Covid-19 pandemic. Here, we see two key, recurring issues: how disintermediation always incurs reintermediation, and the tremendous additional labour required in decentralised systems. However, we also see examples of creative workers engaging in, and discovering new ways in which audiences value and are willing to pay for their work. In our second case study, we saw the acceleration and formalisation of many of these dynamics captured in live-streaming platform Twitch. In this case, we see the design of highly novel creative transactions that enact particular relational work between streamers and their communities. We also see the value and implications of highly public transactional data come to the fore. Drawing on Kornberger's work (2017), we suggest that the highly customisable and open-ended way in which transactions are constructed and take place on Twitch is an example of a distributed evaluative infrastructure. Despite this, it is evident how Twitch retains considerable power as a centralised platform, and is able to extract great value from the considerable labour and valuation work undertaken by others.

This set the scene to consider the potential of distributed ledger technologies, and the heralded 'Web3' as part of a creator economy. In particular, we examined proposed applications of NFTs to provide ticketing services and infrastructure. From this final case study it is worth now highlighting some key distinctions that distributed technologies appear to offer with regards especially valuation, in contrast with previous case studies. Via 'smart contracts', transactions of tokens can be programmed to execute in very specific ways. This implies that the creator of a token or ticket can transparently enforce particular rules or

policy, and hence values, through a transaction. Through decentralisation, this programming (or valuation work) should not be easily changed or undermined without a wide base of support from those who participate in and sustain the network. While there is clearly fragility and vulnerabilities in many crypto-networks, it is (in theory) much harder for a single individual or company to unilaterally change the terms of how transactions work – in the way that a platform like Twitch might. In addition, transactional data and decentralised media shift from being commercial property of large platforms and companies, to public and distributed assets – that can be appropriated and engaged with more easily by others. There are therefore new opportunities for value co-creation (and value destruction) (Bozeman, 2002), where a range of actors can potentially exploit and develop new services and business models based on these distributed assets. More broadly, while Swartz (2020) describes the potentially closed and exclusive nature of transactional communities produced through customer rewards schemes, or exclusive credit cards, decentralisation may offer means for more open-ended, co-created, and relational transactional communities between peers. Thus far, crypto communities have tended to be more purely economic, and market-driven, premised upon investing together in speculative assets for individual gain – but this need not necessarily be the case (Lustig, 2019).

Moreover, we suggest that the broadly recognised (yet perpetually hard to evaluate) social and cultural values of creative practice offers a fertile context in which to explore and develop more sustainable, socially-oriented and equitable applications of decentralised technologies. Perhaps one way to positively envision the ambitions of the ‘creator economy’ is to allow for ‘multiplied relations’ (Josifidis and Lošonc, 2012) where there are numerous opportunities to construct and exchange value, allow for more nuanced relational work (Zelizer, 1989) between creators and audiences. Speed and Maxwell likewise urge consideration of how creative practice participates in, and produces networked ‘value constellations’, rather than simply adding value at a point along a linear value chain. In the context of performing arts that we have considered here, we have seen how decentralisation through variety of socio-technical infrastructures creates conditions for audiences to interact more directly with artists, co-producing and consuming creative content. Yet more cynically, the creator economy could be understood as a series of efforts to monetise these value constellations most efficiently.

Ultimately, we should be cautious to view DLTs exclusively as any kind of panacea for the numerous, deep-rooted issues and inequalities facing the creative and cultural industries (Brook, O’Brien and Taylor, 2020). However, the radical roots and essentially systemic thinking underpinning most decentralised technologies, helps pose important questions of traditional value systems and creates space for rich new imaginaries around creative transactions. In our broad-based prior design-led research on these technologies (Murray-Rust *et al.*, 2023) we have frequently found that DLTs help break down assumed hierarchies and valuation systems, and provide means for individuals and communities to take greater agency in how their work and contributions are valued. This is what we wish to finally emphasise as the primary implication of the varying degrees of decentralisation we have discussed in this chapter.

We encourage creative practitioners, cultural workers and performing artist reflect on where the valuation work (Doganova, 2014) truly takes place in their practice and institutions. To what extent could this be reclaimed, or challenged through new, more decentralised creative

transactions? While undoubtedly laborious, it is striking the extent to which iterative and direct engagement with audiences enables artists to (re)discover means to transact and co-create value together. Larger cultural institutions might reflect on how, like Twitch, they might function more as a trusted, distributed, evaluative infrastructure (Kornberger et al, 2017) – providing tools and platforms for audiences and artists to mediate their value in new ways. And though remaining wary of new platform intermediaries, we encourage cultural workers to identify and seize the means of valuation, wherever they can – through experimentation with Web3 technologies, or otherwise. Now, perhaps more than ever, there exist means to reconsider and redesign the very building blocks of how we transact with each other; creative practitioners should be at the heart of finding new ways for people to create and exchange value together.

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