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TICKETS TO RIDE: NFTS AND THE FUTURE OF CONCERT TICKETING

I. INTRODUCTION

As laid bare by both the recent Taylor Swift Eras Tour ticket sale fiasco (which found millions of fans waiting for hours in virtual Ticketmaster queues, only to be met with "no more tickets available" prompts), as well as a Bad Bunny concert earlier this month in Mexico City (slated to be one of the largest concerts ever to take place in the city, but which quickly descended into a scene of pandemonium as thousands of ticket holders mistakenly had their tickets rejected at the doors by malfunctioning scanning machines), the case can be made for NFTs to be used to help address the ills currently plaguing ticketing in the live music sphere. Specifically, NFTs offer much utility to the concert ticketing space as they can help combat the prevalence of fake tickets in the market, deter scalpers from buying up tickets and reselling them for exorbitant prices and enable artists to gain control over secondary sales.

II. NFT PRIMER

For those who have somehow managed to steer clear of the NFT space, a brief primer is in order. NFTs are immutable digital records that link to digital or physical objects in order to provide clear and unalterable proof of ownership.¹ Each NFT is unique and distinct (by dint of the unique line of code each is composed of) and is hence designated as non-fungible. They are created through a process called minting, in which information about the NFT is published on a blockchain (that is, a decentralized, transparent online ledger) and which results in the creation of a tradable asset. Through such minting, the newly created NFT becomes a unique token linked to a blockchain address that possesses publicly accessible metadata, such as the wallet address that owns the token in question, as well as the unbroken chain of the token's provenance and historical sales prices.² And perhaps most novel, NFTs stored on a blockchain network ensure authenticity and that ownership is secure and easily verifiable, as they are virtually etched in time, unchanging and readily accessible.

Additionally, NFTs minted on a blockchain take the form of smart contracts. Such embedded contracts can be designed to automatically control or document events and execute actions according to predefined terms.³ For example, smart contracts can be utilized to automatically assign ownership (once an NFT is purchased) and manage the transferability of the token in question to a different owner (once it is resold). They can also be constructed to creatively perform operations such as providing royalties to the individual who initially sold the NFT upon

¹ Jolene Creighton and Scott Summers, *NFTs Explained: A Must-Read Guide to Everything Non-Fungible*, NFTNOW (Oct. 6, 2022), https://nftnow.com/guides/what-is-nft-meaning/. ² *Id.*

³ Jake Frankenfield, *What Are Smart Contracts on the Blockchain and How They Work*, INVESTOPEDIA (Mar. 24, 2022), https://www.investopedia.com/terms/s/smart-contracts.asp.

subsequent resales. The smart contracts underlying NFTs also provide a means of security, mandating that such tokens cannot be divided and that they are truly non-replicable.⁴ Such smart contract programmability and bespoke tailoring represent significant forms of innovation readily applicable to the ticketing space.

III. CONCERT TICKET MARKET WOES

The concert ticket marketplace is currently beset by a number of infrastructural woes. For starters, the marketplace is flooded with fraudulent and fake tickets. These scams can take the form of the same digital e-ticket being photoshopped and sold many times over (though such a ticket can only be scanned once) or the manipulation and mass creation of fake e-tickets. This issue of counterfeit tickets is so widespread in fact, that nearly one in ten people purchasing a concert ticket online falls prey to a scam (which is estimated to result in yearly loss of roughly \$2bn).⁵ This woeful 10% figure is currently all but inevitable, as there are no central, trustworthy resources by which a ticket's validity can be confirmed.

Perhaps even more harmful to unsuspecting ticket seekers are the scalpers who proliferate in the space. Such scalpers run amok and frequently utilize sophisticated software bots to snap up tickets on the primary market mere milliseconds after they go on sale.⁶ While such bot-usage is a federal crime,⁷ bots continue to wreak havoc on the ticketing landscape. In fact, it has been estimated that bots make up a whopping 40% or so of all activity taking place on primary ticketing platforms.⁸ Likewise, they assuredly make up nearly all of the activity taking place on the secondary ticketing platforms.

Taylor Swift's previously mentioned Eras Tour ticket sale meltdown profoundly crystallizes just how out-of-hand secondary market ticket prices can get. Despite Ticketmaster's ostensible introduction of measures to aid fans in landing primary market tickets (at prices ranging from \$49 - \$449), endless Swift fans were left empty handed once the tickets quickly sold out. More vexing to fans was secondary ticket sites almost immediately inundated with the tickets they

Fungible_Tokens_as_Core_Component_of_a_Blockchain-based_Event_Ticketing_Application. ⁶ Jonathan Greig, *Ticketmaster Blames 'Bot Attacks' for Taylor Swift Ticket Fiasco*, THE RECORD (Nov. 21, 2022), https://therecord.media/ticketmaster-blames-bot-attacks-for-taylor-swift-ticket-fiasco/.

⁷ Allison Considine, *The Battle Between Bots and the Ticket Industry Continues*, WESTERN ARTS ALLIANCE, https://www.westarts.org/news-updates/the-battle-between-bots-and-the-ticket-industry-

https://www.forbes.com/sites/oisinlunny/2019/06/24/the-battle-for-15-19b-secondary-ticket-market-heats-up-with-first-europe-wide-anti-touting-law/?sh=18a5f0902e02.

⁴ Gretchen Andrew, *NFTs Use 'Smart' Contracts—But What Exactly Are They?*, THE ART NEWSPAPER (Aug. 17, 2022), https://www.theartnewspaper.com/2022/08/17/nfts-use-smart-contractsbut-what-exactly-are-they.

⁵ Ferdinand Regner, André Schweizer & Nils Urbach, *NFTs in Practice – Non-Fungible Tokens as Core Component of a Blockchain-based Event Ticketing Application*, RESEARCHGATE (Dec. 2019), https://www.researchgate.net/publication/336057493_NFTs_in_Practice_-_Non-

continues#:~:text=In%20December%20of%202016%2C%20President,ticketing%20rules%20a% 20federal%20offense, (last visited Nov. 19, 2022).

⁸ Oisin Lunny, Battle For \$15.19 Billion Secondary Ticket Market Heats Up With First Europe-Wide Anti Touting Law, FORBES (Jun. 24, 2019),

sought priced at gallingly high figures (some listed for a dizzying \$30k).⁹ Though the stratospheric heights of such resale prices are uniquely off the charts as a result of Swift's singularly rabid fan base, they nonetheless help lay bare the ubiquitous price gouging that occurs for nearly every sought-after concert. In fact, it is estimated that the global secondary ticket market will reach nearly \$15bn dollars by 2025, most of which stands to be pocketed by scalpers.¹⁰

Tellingly, consumers aren't the only ones fed up with obscenely high secondary market ticket prices. In fact, a number of prominent artists have been scathingly forthright in voicing similar frustration with the status quo. Earlier this year, for instance, Bruce Springsteen explained that a portion of tickets to his highly anticipated 2023 U.S. tour hit the primary market at shockingly high prices (upwards of \$5k per ticket in some cases), as "...[t]he ticket broker or someone is going to be taking that money," and Springsteen thus contending, "...why shouldn't that money go to the guys that are going to be up there sweating three hours a night for it?".¹¹ Springsteen further expounded that his team were compelled to greenlight the exorbitant ticket prices as a result of "...ticket buying [getting] very confusing, not just for the fans, but for the artists also...Those tickets...are going to go for that [higher] price somewhere anyway".¹² Whereas Springsteen doesn't exactly require sympathy, espousing these views shortly after his music catalog was purchased for a figure north of \$500mm,¹³ the point he makes certainly has merit. How it must be exasperating for artists to see tickets to their shows resold at significant premiums, of which they see no profit. Such an occurrence is a manifestation of the market inefficiency that benefits scalpers at the expense of the artist and the audience member.

Other musicians have attempted to counter this untenable price gouging situation in compelling but ultimately imperfect ways. For example, Seattle grunge stalwarts, Pearl Jam, designated all tickets for a recent tour of theirs as mobile-only and non-transferable at a price other than face.¹⁴ Despite being a laudable step to cutting out scalpers, the shortcomings of this approach include the transfer of tickets only allowed to take place in the preordained transfer app, thereby limiting the potential base of consumers who may have wanted to buy such resale tickets but couldn't find the app. Additionally, the strict requirement that all concert attendees may only enter with the ticket purchaser is less than ideal as it likely leads to ticket holders having to huddle together in the cold (and to possibly even miss some of the show) in order to wait for a friend running late for one reason or another.

¹⁰ Gareth Jenkinson, *NFT Utility to Remedy Ticketing Dilemmas? Experts Weigh In*, COINTELEGRAPH (Jul. 25, 2022), https://cointelegraph.com/news/nft-utility-to-remedy-ticketing-dilemmas-experts-weigh-in.

¹¹ Andy Greene, *Bruce Springsteen Breaks Down His R&B Covers LP* — and Responds to Fan Outrage Over Ticket Prices, ROLLING STONE (Nov. 18, 2022),

https://www.rollingstone.com/music/music-features/bruce-springsteen-covers-lp-fan-outrage-ticket-prices-1234632658/.

 12 *Id*.

¹³ Ben Sisario, *Bruce Springsteen Sells Music Catalog in Massive Deal*, NEW YORK TIMES (Dec. 15, 2021), https://www.nytimes.com/2021/12/15/arts/music/bruce-springsteen-sells-music-catalog.html.

¹⁴ Olivia Perreault, *Pearl Jam, Ticketmaster End Feud To Combat Ticket Resale*, TICKET NEWS (Jan. 16, 2020), https://www.ticketnews.com/2020/01/pearl-jam-ticketmaster-ticket-resale/.

⁹ Jennifer Murphy, *How NFTs Could Have Saved The Taylor Swift Tour Presale*, QIC'S BLOG (Nov. 17, 2022), https://www.quantumimprovements.net/blog/how-nfts-could-have-saved-the-taylor-swift-tour-presale.

Another creative attempt to neutralize scalper's grip on the secondary market has been proffered by the country music superstar, Garth Brooks. Brooks' strategy takes the form of inundating the market with concerts in order to meet fans' demand for tickets (in some instances he has played 10+ consecutive shows in a given city). Such bloated scheduling is effective, as it blunts the traditionally mismatched supply and demand exploited by scalpers. Yet, it is far from scalable. Many artists don't have the luxury of, as Brooks puts it "...play[ing] to a half [empty] house"¹⁵, and, unlike Brooks, don't have a plethora of sold-out shows on their docket to help mitigate the financial loss from sparsely attended shows. Furthermore, the stamina required and simple desire to play such a volume of concerts (which may lead to feelings of monotony and stasis) is far from a given for most performers. As such, this approach to neutralizing scalpers and ticket price gouging is interesting but ultimately not the answer.

IV. NFT TICKETS: THE BANE OF SCALPERS AND PRICE GOUGERS EVERYWHERE

As detailed thus far, rampant fake tickets, scalper hegemony and altogether abject price gouging are part and parcel of the current ticket market. These hurdles beset just about anyone attempting to buy concert tickets, a stain on the touring industry. A stain that serves few and critically, is largely not the fault of artists, labels or concert venues. Instead, the locus of the lackluster status quo is largely the outdated technology used to represent tickets. Especially with paper tickets largely obsolete, the digital tickets that currently run the concert space are easily gamable and untraceable. NFTs very much can and should be integrated into the concert ticketing world as a means of ameliorating such shortcomings.

A foundational, essential argument for NFTs to be introduced as concert tickets en masse is the ability of NFTs to effectively eradicate fake tickets overnight. Scams proliferating flourish largely because the current ticket landscape has no widespread, readily accessible mode of asserting a ticket's provenance (which could be used to trace a particular ticket back to its issuance by a primary source). As such, unless a third-party ticket is bought through an authorized, verified third party (such as StubHub, who charges sizable fees for verification and hosting services), the purchaser is in some way rolling the dice whenever they buy tickets on the secondary market.

NFTs almost by definition solve this issue as they are one-of-a-kind tokens stored on a specific blockchain, transferable directly from the tickets' issuer to the buyer's wallet with no intermediary required.¹⁶ Such NFT tickets can feature unique and unfalsifiable QR codes enabling access to an event, and crucially, bar entry to unauthorized parties using falsified tickets.¹⁷ They also cannot be duplicated or altered and only can be transferred via blockchain transactions. Ticketing integrity is accordingly insured as all transacting activity can be scrutinized and confirmed. The most profound breakthrough NFTs present is the facilitation of transactions in a

¹⁵ Briar Stewart & Terry Reith, *Meeting Demand Helps Beat Ticket Scalpers, Garth Brooks Says*, CBC (Feb. 18, 2017), https://www.cbc.ca/news/canada/edmonton/meeting-demand-helps-beat-ticket-scalpers-garth-brooks-says-1.3989506.

¹⁶ The Complete Guide to NFT Tickets, SUPRAORACLES (Aug. 16, 2022),

https://supraoracles.com/academy/the-complete-guide-to-nft-tickets/.

¹⁷ Josh Katz, *Why We Need NFT Ticketing for Sports Events*, COINDESK (Jul. 29, 2022), https://www.coindesk.com/layer2/sportsweek/2022/07/29/why-we-need-nft-ticketing-for-sports-events/.

trustless system that enables parties to verify the authenticity of the transaction and thus confidently interact and trade without personally knowing or needing to vet each other.¹⁸

Blockchain immutability similarly enables a near-immediate way of verifying veracity and tracing a given ticket's historical path, from its minting through all subsequent resales. It also ensures that forgeries cannot exist. Prior to purchasing such a ticket, secondary market purchasers can gain ironclad confidence of authenticity by scanning the blockchain the ticket is native to, in order to determine its ownership history, via the use of Blockchain explorer tools.¹⁹ With all of the preceding noted, it becomes abundantly clear that the digital access credentials NFTs possess can provide much needed transparency to the concert ticket space.

Another potentially powerful blow to the prevailing presence of scalpers and price gouging in the ticket market is rooted in the smart contracts programmable within NFTs. Scalpers currently have completely free, unadulterated reign to charge as much as they want for tickets on the secondary market. They are, in fact, even incentivized to post tickets at exorbitant prices so that consumers either feel forced to splurge on such tickets, or, peg their expectations of what they'll need to pay to go to the show at such price levels. So, if ticket prices are subsequently lowered, they will think they are getting a good deal, which they are not. The pot is further sweetened for scalpers by the fact that they are currently able to retain 100% of the profit generated by secondary sales (as previously detailed, artists don't currently receive any further revenue from tickets after they are sold on the primary market).

NFT tickets incorporating smart contracts can help throw a wrench directly into this lackluster status quo. First, programmable into such smart contracts are features such as predetermined secondary sales price-caps (that is, resale price maximum limits).²⁰ In such use cases, NFT smart contracts can be programmed to disallow a sale's execution if the price being paid exceeds a specific, predefined price. Such price-caps can serve as an effective means of deterrence to scalpers, swiftly foreclosing them from price gouging on the secondary market.

Artists and tour promoters can go even further and program NFT tickets to be either fully non-transferable under any circumstances (that is, completely immovable to another digital wallet), or transferable to other wallets only at tickets' initial minting price.²¹ In doing so, artists can decisively insure that those purchasing concert tickets are individuals genuinely seeking to catch some live music (instead of those simply pursuing profits). Such transfers occurring on the immediately accessible, widely available blockchain can be distinguished from the aforementioned Pearl Jam transfer-conditions that were limited to a discreet, potentially inaccessible app and thus not as appealing nor user-friendly.

Another breakthrough component of NFT tickets is that they can be programmed to automatically share revenue from future transactions with its creators, initial owners, or even third

²¹ Cathy Breed, *NFTs Are Ready to Disrupt the Ticketing World!*, MEDIUM (May 23, 2021), https://medium.com/centrality/nfts-are-ready-to-disrupt-the-ticketing-world-5cf13c637912.

¹⁸ All You Need to Know About NFT Smart Contracts, BINANCE BLOG (Aug. 4, 2022), https://www.binance.com/en/blog/nft/all-you-need-to-know-about-nft-smart-contracts-568745413587703085.

¹⁹ Diego Geroni, *List Of 7 Best Blockchain Explorers*, 101 BLOCKCHAINS (May 17, 2021), https://101blockchains.com/best-blockchain-explorers/.

²⁰ Jennifer Murphy, *How NFTs Could Have Saved The Taylor Swift Tour Presale*, QIC'S BLOG (Nov. 17, 2022), https://www.quantumimprovements.net/blog/how-nfts-could-have-saved-the-taylor-swift-tour-presale.

parties.²² A percentage of profits generated from secondary sales of NFT tickets can be hardcoded into the smart contract to be sent in an automated fashion to preassigned parties. The artist has complete discretion as to the amount of profit they can opt to receive from secondary sales, as well as to whom such money is sent. Such royalties can crucially help cure the current ticket market's failure to have artists benefit from the resale market. In fact, introducing this revenue share will finally enable artists to participate in the full economic lifespan of the ticket.²³

Taken together, NFT tickets' ability to come with preset secondary sales price caps as well as provide royalties made off of such sales to primary artists, may truly come to represent a silver bullet that provides a death knell to the scalping industry. To illustrate this, consider the following hypothetical: whereas a scalper can currently deploy bots on the primary market to secure the best seats in the house to a Bob Dylan show on his Never Ending Tour for \$300 each and shortly thereafter resell them for \$5k a piece (pocketing the entirety of the outsized profit of \$4.7k per ticket), Dylan's team could instead use NFT ticket smart contracts to program the very same tickets to have a resale cap of say 25% of the original purchase price (so, a \$375 max resale price per ticket in this example) of which, 25% of the profit (\$18.75 per ticket) is preprogrammed to be sent to Dylan, leaving the scalper to pocket the negligible remaining 75% of the profit (\$56.25 per ticket). Clearly, the magnitude of profit potential is immensely different in these two instances, thus establishing that smart contract mechanisms can be extremely effective in decisively diminishing the ability of third parties to profit on the secondary market. Such newly minted returns can be counted on to quickly disincentivize scalpers from making the investment of time and money currently needed to engage in the resale racket, and thus return power to artists and consumers alike.

V. LEGAL CONSIDERATIONS

The utilization of NFTs as tickets is a further alluring prospect as few legal hurdles currently abound. Of course, as with all other digital ephemera, the creator of such NFT tickets must ensure that any artworks accompanying tickets comply with general intellectual property laws (things such as trademark, copyright, etc.).²⁴ Crucially, however, one would be hard-pressed to assert that the Supreme Court's *Howey* test, which looms large over many other NFT use-cases, applies to NFT tickets. *Howey* and subsequent case law suggest that an investment contract exists (and thus, onerous SEC oversight applies) in instances involving money invested into a common enterprise with ensuing reasonable expectation of profits derived from others' efforts.²⁵ The only "profits" NFT concert ticket buyers stand to make are those ineffable feelings of elation provided by live music, a lackluster (if not endearing) argument to say the least. For this reason (among others), the *Howey* test is likely outside of the scope of ticket NFTs. Further confidence in the smart contract technology underlying such NFTs was voiced in a recent Senate Joint Economic Committee report which noted that smart contracts are "rooted in basic contract law" and

²² NFT Tickets - So Much More Than Just Pretty Pictures, Oveit, https://oveit.com/nft-tickets/, (last visited Nov. 3, 2022).

²³ Bradley J. Baker, Anthony D. Pizzo & Yiran Su, *Non-Fungible Tokens: A Research Primer and Implications for Sport Management*, SPORTS INNOVATION JOURNAL, 2022, 1, 1–15 (Mar. 23, 2022), https://journals.iupui.edu/index.php/sij/article/view/25636.

²⁴ Your NFT Playbook, NATIONAL LAW REVIEW (Jul. 1, 2021),

https://www.natlawreview.com/article/your-nft-playbook.

²⁵ SEC v. W.J. Howey Co., 328 U.S. 293 (1946).

effectively serve the same purpose as judicial or arbitration enforcement, only with the nuance of "...a program enforc[ing] the contract built into the code."²⁶ In short, the legal and congressional landscape bode well for the potential flourishing of NFT tickets, significant factors underscoring their attractiveness.

VI. CONCLUSION

As has been explored in this paper, the legacy concert ticket industry is ripe for innovation. Accordingly, NFT tickets appear destined to shake up the space and revolutionize the way such tickets are currently sold, resold and more generally, regarded. In fact, some in the industry have bullishly speculated that the NFT ticketing market is poised to comprise 25% of the total ticketing market by 2027.²⁷ Time will tell if this seismic change in ticketing indeed occurs in that timeframe. If it has not, it will nonetheless likely only be a matter of "when", not "if", NFT tickets are ubiquitous and the new normal.

The benefits and selling points of NFTs as concert tickets are incontrovertible: they can utilize blockchain technology to assure authenticity of tickets (to the chagrin of fraudsters) and they enable an artist to control the secondary market sales of tickets to their shows (while also providing them a royalty upon such secondary sales). Such factors, considered altogether, can help control returns to artists and ultimately stand to mark a powerful innovation for the touring music industry establishment.

²⁶ Benjamin Kazenoff, *NFTs, Blockchain Technology, and Copyrights: How the Future of the Music Industry Will Be Decentralized*, ENTERTAINMENT, ARTS AND SPORTS LAW JOURNAL (2021), https://nysba.org/app/uploads/2021/11/EASL-Journal-2021-Vol-32-No-3 8.5X11 WEB.pdf.

²⁷ Prashant Jha, *Beyond Collectibles: How NFTs Are Revamping the Ticketing Industry*, COINTELEGRAPH (Apr. 23, 2022), https://cointelegraph.com/news/beyond-collectibles-how-nfts-are-revamping-the-ticketing-industry.