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THE PARADOXICAL SOLUTION TO ENFORCE RESALE ROYALTIES AND KEEP THE NFT MARKET DECENTRALIZED

Katelyn Holcomb

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THE PARADOXICAL SOLUTION TO ENFORCE RESALE ROYALTIES AND KEEP THE NFT MARKET
DECENTRALIZED

KATELYN HOLCOMB*

*“We need to stay focused on establishing new, more equitable and sustainable ways of doing things, instead of just recreating the old, outdated and failed structures.
To give up on forging this reality would be a huge mistake.”
-Damien Roach¹*

ABSTRACT

This article examines the role of resale royalties in maintaining decentralization in the NFT ecosystem and supporting financial sustainability for artists. Although resale royalties, also known as creator royalties, are widely valued by NFT artists, they have been frequently undermined by the centralized policies of large NFT marketplaces. These include zero-royalty policies that are driven by the competitive pressure to gain market share, where platforms allow buyers and sellers to bypass creator royalties. This behavior has led to a destructive race to the bottom and the overall erosion of resale royalties. To address this problem in the NFT market, this article proposes the adoption of Limit Break’s ERC721-C smart contract and the establishment of a collecting society, which would act on behalf of the artists to oversee the enforcement of their resale royalties. This proposal would ensure robust, on-chain royalty enforcement and allow for the ideals of decentralization to be implemented practically. This article presents a compelling framework for sustaining artists’ careers and preserving the integrity of the NFT market.

*J.D. Candidate 2025, Chicago-Kent College of Law, Intellectual Property J.D. Certificate Program. Special thanks to Professor Edward Lee for sharing his knowledge and for guidance in the writing process. I also deeply appreciate the support and feedback from my peers, family, and friends.

¹ MK Manoylov, *Why NFT Royalties Are Almost Impossible to Enforce On-Chain*, THE BLOCK (Oct. 21, 2022), <https://www.theblock.co/post/178603/why-nft-royalties-are-almost-impossible-to-enforce-on-chain>.

TABLE OF CONTENTS

INTRODUCTION	51
I. THE PROBLEM OF MARKETPLACES CIRCUMVENTING RESALE ROYALTIES FOR NFT ARTISTS.....	53
A. UNDERSTANDING NFTs, BLOCKCHAIN, AND SMART CONTRACTS.....	53
B. THE PROMISE OF RESALE ROYALTIES FOR VISUAL ARTISTS.....	54
1. <i>Rationale of Droit de Suite Under French Copyright Law and Recent Enactment in the United Kingdom</i>	55
2. <i>The Popularity of Resale Royalties by Contract for NFT Artists</i>	56
C. NFT MARKETPLACES HALT THE COLLECTION OF RESALE ROYALTIES DESPITE THE BENEFITS TO ARTISTS	57
D. THE RACE TO THE BOTTOM BETWEEN BLUR AND OPENSEA	58
1. <i>The Centralization of Royalty Policies in a Few Dominant Marketplaces Goes Against the Goal of Web3</i>	59
2. <i>Many Existing NFTs Lack “On-Chain” Enforcement of Royalties</i>	60
E. THE PROBLEMS CAUSED BY THE LACK OF ENFORCEMENT OF ARTISTS’ RESALE ROYALTIES 61	
1. <i>Circumventing Royalties Hurts Artists</i>	61
2. <i>Volatile Marketplaces</i>	62
3. <i>Attempts to Address the Problem</i>	62
II. PROPOSAL: ERC721-C AND A COLLECTING SOCIETY TO ENFORCE RESALE ROYALTIES	64
A. RECENTRALIZATION THROUGH ERC721-C	64
1. <i>Elements of the Successful ERC721-C Contract</i>	64
2. <i>The Collecting Society</i>	66
B. BENEFITS OF THE PROPOSAL	67
1. <i>Incentivizes Creation</i>	67
2. <i>Equity and Fairness</i>	68
III. CRITICISMS OF SMART CONTRACTS AND RESALE ROYALTIES	69
A. DISCOURAGES TRADERS FROM PURCHASING	69
B. RECENTRALIZATION	70
C. BREACH OF CONTRACT LAWSUITS	70
CONCLUSION.....	71

INTRODUCTION

Since its inception, artists have flocked to the NFT ecosystem for one prevailing reason: resale royalties. The world of NFTs provided visual artists with a route to earning resale royalties and fair compensation benefits that have often been elusive in the traditional art world. However, the enforcement of artist-prescribed royalties in the NFT ecosystem has been anything but certain. This uncertainty stems from marketplace profit-seeking behavior and pressures to compete, which ensue a destructive socio-economic phenomenon known as “the race to the bottom.”²

An NFT or “non-fungible token,” is a digital asset recorded on a blockchain, representing unique ownership of a specific item.³ A blockchain is a decentralized public ledger that securely records ownership and transactions, ensuring immutability and transparency.⁴ A new iteration of the World Wide Web, called Web3, incorporates this blockchain technology to create a decentralized internet where users can own and control their digital assets directly, without relying on centralized platforms.⁵ The interplay between Web3 and NFTs are “expanding what is possible on the internet through the promises of decentralization.”⁶ One important feature of NFTs is the resale royalty, which allows creators to earn a percentage of each sale on the secondary market.⁷

In December 2017, NFTs began gaining worldwide attention with the creation of OpenSea.⁸ OpenSea became the first known and largest NFT marketplace, trading on the Ethereum blockchain.⁹ OpenSea’s popularity among artists was largely tied to the platform’s mandatory enforcement of resale royalties.¹⁰ Their original policies allowed creators to set their royalty rate from 5% to 10%.¹¹ At its peak in 2022, artwork collections outside the top 10 generated 80% of the annual earnings in creator fees alone.¹² During this period, OpenSea was valued at \$13.3 billion and commanded a remarkable 89% share of the market.¹³ To compete, other marketplaces lowered their trading fees and eliminated mandatory royalty fees, enticing

² Interview with Edward Lee, Professor, Chicago-Kent College of Law (Mar. 6, 2024).

³ Mitchell Clark, *NFTs, Explained*, THE VERGE (June 6, 2022), <https://www.theverge.com/22310188/nft-explainer-what-is-blockchain-crypto-art-faq>.

⁴ Brooke Becher, *Blockchain: What It Is, How It Works, Why It Matters*, BUILTIN (Mar. 29, 2024), <https://builtin.com/blockchain>.

⁵ *What Is Web3*, MCKINSEY & CO. (Oct. 10, 2023), <https://www.mckinsey.com/featured-insights/mckinsey-explainers/what-is-web3>.

⁶ Kade Garrett, *What Is Web3 and What Is Its Role in NFTs*, DECRYPT (Nov. 26, 2022), <https://decrypt.co/resources/what-is-web3-and-what-is-its-role-in-nfts-learn>.

⁷ Anthony O’Dwyer, *Droit de Suite – The Artists’ Resale Right*, UNIV. COLL. CORK SNAPSHOTS OF DOCTORAL RSCH. 71, 71 (2012).

⁸ *Building an Open Digital Economy*, OPENSEA, <https://opensea.io/about> (last visited Feb. 18, 2024).

⁹ *Id.*

¹⁰ Torey Akers, *NFT Marketplace OpenSea Ends Its Resale Royalty Policy, Sparking Industry-Wide Backlash*, THE ART NEWSPAPER, <https://www.theartnewspaper.com/2023/08/23/opensea-nft-marketplace-ending-resale-royalties-policy> (last visited Feb. 25, 2024).

¹¹ Ch David, *OpenSea Revenue and Growth Statistics*, SIGNHOUSE, <https://usesignhouse.com/blog/opensea-stats/> (last visited June 30, 2024).

¹² *Id.*

¹³ *Id.*

traders to purchase on their platform.¹⁴ These marketplaces continually lowered their standards and prioritized undercutting one another over addressing the desires of their artists. This tit-for-tat competition negatively impacted market value and seemingly left profit margins “permanently squeezed.”¹⁵ Until recently, OpenSea, along with other popular marketplaces, had completely terminated the enforcement of resale royalties, making a decentralized system increasingly more centralized.¹⁶ The top market players’ unilateral decisions defeated the main objective of Web3 and NFT marketplaces.¹⁷

These decisions caused a major downturn in NFT sales that led to a decrease in NFT creation and reduced consumer demand.¹⁸ The zero-royalty policies undermined trust in the NFT ecosystem and created market instability. In April 2024, OpenSea backpedaled and announced it would once again enforce resale royalties, and other marketplaces followed suit.¹⁹ OpenSea’s reinstatement of royalties demonstrates the unsustainability of the race to the bottom and underscores its detrimental effect on the market’s integrity. The decision signals that a healthy, sustainable market must prioritize creators’ financial interests to maintain both long-term market growth and integrity. This article offers a path forward to remedy the damage done by the unilateral circumvention of resale royalties. Through the application of minimally centralized regulation, a sustainable, long-term market can be established.

The remedy proposed in this article consists of two parts: first, the adoption of Limit Break’s ERC721-C smart contract, which facilitates “on-chain” enforcement of royalties,²⁰ and second, the implementation and oversight of a collecting society. Through the combination of “on-chain” royalty-enforcing smart contracts and a collecting society, artists can obtain greater protection and respect for their desired royalties.

Part I details the problem of circumvention of resale royalties in NFT marketplaces. It provides a foundational introduction to NFTs and their essential building blocks. It explains the origins of artist resale royalties (*droit de suite*) in French copyright law and illustrates the promise of resale royalties. Particularly, it elaborates on the economic importance to creators and the benefit for the overall health of the market. Then, Part I details how the existing smart contracts lack automatic enforcement of the resale royalties and the issues caused by this lack of enforcement. Part II proposes enforcement of the artist resale royalty through the ERC721-C smart contract and the implementation of a collecting society as a policing force. Further, it explains that the proposal should be adopted because it promotes the creation of new visual art, ensures equity and fairness for artists, and addresses the widespread circumvention of royalties, thereby allowing for a more sustainable NFT market. Part III addresses the potential criticisms of the proposed solution.

¹⁴ Jacob Kastrenakes, *A Key Feature of NFTs Has Completely Broken*, THE VERGE (Aug. 17, 2023), <https://www.theverge.com/2023/8/17/23836440/nft-creator-royalty-fees-are-dead-opensea-optional>.

¹⁵ James Chen, *What Is the Race to the Bottom?*, INVESTOPEDIA (Aug. 1, 2024), <https://www.investopedia.com/terms/r/race-bottom.asp>.

¹⁶ Interview with Edward Lee, Professor, Chicago-Kent College of Law (Feb. 8, 2024).

¹⁷ *Id.*

¹⁸ *Id.*

¹⁹ OpenSea Crew, *Creator Earnings: ERC721-C Compatibility on OpenSea*, OPENSEA BLOG (Apr. 2, 2024), <https://opensea.io/blog/articles/creator-earnings-erc721-c-compatibility-on-opensea>.

²⁰ See Julian Son, *Limit Break Introduces Creator Token Contracts*, LUCKY TRADER (May 9, 2023), <https://luckytrader.com/news/limit-break-introduces-creator-token-contracts>.

I. THE PROBLEM OF MARKETPLACES CIRCUMVENTING RESALE ROYALTIES FOR NFT ARTISTS

Part I discusses the basics of NFTs and the importance of resale royalties. Additionally, it explores how royalty circumvention detrimentally affects NFT artists by undermining an artist's ability to receive fair compensation for their work as it grows in popularity. Circumvention of resale royalties is perpetrated not only by individual traders, but also by dominant marketplaces.

A. UNDERSTANDING NFTS, BLOCKCHAIN, AND SMART CONTRACTS

As discussed above, an NFT or “non-fungible token” is a digital token recorded on a blockchain that represents a unique asset such as an embodiment of an artwork.²¹ Simply described, blockchain is a decentralized public ledger that, among other things, stores and records ownership of NFTs.²² Any data stored on blockchain is immutable ensuring secure and legitimate transactions.²³ The non-fungibility of NFTs on blockchain means that each NFT embodiment is unique and cannot be exchanged on a one-to-one basis with another embodiment.²⁴ Every NFT has distinct attributes that differentiate it from others, inherently adding to its value, and making it irreplaceable and one-of-a-kind.²⁵

Each NFT has a distinctive token identifier, which some describe as a “twin of something designated by the NFT creator, such as a painting or an artwork.”²⁶ Unlike the original artwork, the ‘twin’ is exclusively a virtual embodiment on the blockchain and is property that has its own independent value.²⁷ Once a creator produces a work, they can select an NFT platform to mint and market their creation.²⁸ Minting the NFT will create the digital ‘twin’ that is written on the blockchain, which can then be sold or traded on the open market.²⁹ During this process of minting, a smart contract is utilized to define the unique properties and rights associated with the NFT.³⁰

A smart contract is a foundational feature for NFTs.³¹ Smart contracts are blockchain-based automated computer programs that enforce conditional rules using “if this, then that” logic.³² A mainstream comparison to the smart contract is a vending machine.³³ Upon condition, the machine will take in coins in exchange for product and residual change.³⁴ So, “if” one were to put two dollars in the vending machine for a Coke (assuming the condition is satisfied), “then”

²¹ Mitchell Clark, *supra* note 3.

²² Brooke Becher, *supra* note 4.

²³ *Id.*

²⁴ EDWARD LEE, CREATORS TAKE CONTROL 30 (2023).

²⁵ *Id.*

²⁶ *Id.* at 6.

²⁷ *Id.*

²⁸ *NFT Art: How It Works and How to Create It*, UPWORK (June 22, 2022), <https://www.upwork.com/resources/how-to-create-nft-art>.

²⁹ *What Is Minting?*, OPEANSEA (Aug. 26, 2022), <https://opensea.io/learn/nft/what-is-minting-nft>.

³⁰ *Id.*

³¹ *What Is a Smart Contract?*, OPENSEA (Oct. 2, 2023), <https://opensea.io/learn/blockchain/what-is-a-smart-contract>.

³² *Id.*

³³ Nick Szabo, *Smart Contracts: Building Blocks for Digital Markets*, 16 EXTROPY J. OF TRANSHUMAN THOUGHT 1, 1-2 (1996).

³⁴ *Id.*

the machine would dispense the Coke and any change that may be due. NFT smart contracts operate similarly but go beyond these basic functions in that they manage transactions and ownership all in computer code.³⁵ For example, when a collector purchases an NFT, the self-operating smart contract will transfer ownership to the collector and send payment to the seller. Most importantly, some smart contracts can define, calculate, and transfer a percentage of the resale royalty to the creator upon resale of their work.³⁶

B. THE PROMISE OF REALE ROYALTIES FOR VISUAL ARTISTS

Resale royalties in the NFT market are an attractive alternative for visual artists who don't have adequate protection under United States copyright law. U.S. musicians, actors, authors, and other artistic industries have some form of resale royalties that "reward their enduring stake in the redistribution of their intellectual property."³⁷ In distinction to these creators, who can distribute identical copies of their work, visual artists can only sell their works once and do not receive some of the statutory benefits of the copyright system.³⁸ The value of visual art is intertwined with its uniqueness and little money can be made from reproduction.³⁹

In 2012 and 2013, the Senate and House Committees asked the United States Copyright Office to reexamine how the current copyright system impacts visual artists.⁴⁰ Congress was later encouraged to implement federal resale royalties to not only benefit the artists, but to also help preserve the integrity of visual art.⁴¹ However, these requests fell on deaf ears and did not yield a change to the copyright system.

Resale royalties are a foreign-born concept that scholars have called "antithetical to the Anglo-American tradition of free alienability of property."⁴² While not popular in the United States, 80 countries around the world have implemented artist resale royalties for visual artists.⁴³ As discussed below, the origins of copyright law and resale royalties would suggest that resale royalties might not represent as significant of a departure from Anglo-American tradition as one might assume. Furthermore, the economic power they provide is a driving force behind their growth in the NFT ecosystem.⁴⁴

³⁵ *What Is an NFT Smart Contract?*, HEDERA LEARNING CTR., <https://hedera.com/learning/smart-contracts/nft-smart-contract> (last visited Apr. 21, 2024).

³⁶ *NFT Art: How It Works and How to Create It*, *supra* note 28.

³⁷ Maxwell L. Anderson, *Why American Artists Should Benefit from the Resale of Their Works*, THE ART NEWSPAPER (Jan. 4, 2019), <https://www.theartnewspaper.com/2019/01/04/why-american-artists-should-benefit-from-the-resale-of-their-works>.

³⁸ Intergovernmental Copyright Committee, 11th Sess., *The Resale Right of Artists ("Droit de Suite")*, UNESCO Doc. CLT-97/CONF.205/CLD.7 (Apr. 9, 1997).

³⁹ Interview with Edward Lee, *supra* note 2.

⁴⁰ U.S. COPYRIGHT OFF., *REALE ROYALTIES: AN UPDATED ANALYSIS 9* (2013), <https://www.copyright.gov/docs/resaleroyalty/usco-resaleroyalty.pdf>.

⁴¹ *Id.*

⁴² *Resale Royalties in the United States for Fine Visual Artists: An Alien Concept*, FINDLAW, <https://corporate.findlaw.com/intellectual-property/resale-royalties-in-the-united-states-for-fine-visual-artists-an.html> (last updated Mar. 26, 2008).

⁴³ *Artist's Resale Right*, WIPO, <https://www.wipo.int/copyright/en/activities/resale-right.html> (last visited Mar. 4, 2024).

⁴⁴ Lara Mastrangelo, *Droit De Suite: Why the United States Can No Longer Ignore the Global Trend*, 18 CHI. KENT J. INT'L L. 1, 7 (2018).

Resale royalties allow an artist to benefit from the financial appreciation of their work⁴⁵ by allocating a small percentage of a resale value back to the artist. With visual artists in particular, resale royalties can remedy the inequity faced by artists who do not enjoy success until later in their careers.⁴⁶ For instance, Prince Jacon Osinachi, from Aba, Nigeria, went from an aspiring writer to a prominent NFT artist.⁴⁷ He is well-known for his textured drawings on Microsoft Word and began selling his NFTs in 2017.⁴⁸ In 2019, the price of his work jumped from \$20 to \$100, which was noteworthy.⁴⁹ By October 2021, Christie's, a British auction house, had sold one of his collections for more than \$213,000.⁵⁰ By means of resale royalties, his original works that increased in value would provide a source of supplemental income.

1. Rationale of Droit de Suite Under French Copyright Law and Recent Enactment in the United Kingdom

Droit de suite, which means 'right to follow' was first codified in France on May 20, 1920.⁵¹ It was proposed after World War I in response to impoverished artists struggling on the streets, despite their work being resold at auction for exorbitant amounts.⁵² French legal precedent has established that "a work of art is not only an object" but an "embodiment of its creator's thoughts and personality" and therefore, an artist has "a permanent relationship with his or her art."⁵³ This idea has laid the groundwork for the implementation of *droite de suite* in countries around the world.

At its birth, *droite de suite* was a social welfare initiative created to address the disparities between artists and their wealthier customers.⁵⁴ It is "defined as a hybrid of the moral right (*droit moral*) and the author's right (*droit d'auteur*)."⁵⁵ It has also been described as "an appendage of the inalienable right of paternity" as well as the "right to procure some of the future economic growth of a work."⁵⁶ This theory faces criticism from those who argue that it is unfair for the creator to share in the monetary growth of their work and not share in the potential losses a collector may face.⁵⁷ Nonetheless, proponents assert that the primary justification for resale royalties lies in the "permanent relationship between an artist and his work,"⁵⁸ which acknowledges the work for its economic value and its connection to the artist.⁵⁹

In France, *droit de suite* is distributed through two societies: Societe de la Propriete Artistique et des Dessins et Models ("SPADEM") and the Association pour la Diffusion des Arts

⁴⁵ Anthony O'Dwyer, *supra* note 7.

⁴⁶ *Id.*

⁴⁷ LEE, *supra* note 24, at 28.

⁴⁸ *Id.* at 29.

⁴⁹ *Id.* at 32.

⁵⁰ *Id.*

⁵¹ Intergovernmental Copyright Committee, *supra* note 38.

⁵² O'Dwyer, *supra* note 7.

⁵³ Michael B. Reddy, *The Droite de Suite: Why American Fine Artists Should Have a Right to a Resale Royalty*, 15 LOY. L.A. ENT. L. REV. 509 (1995).

⁵⁴ Mastrangelo, *supra* note 44.

⁵⁵ Reddy, *supra* note 53.

⁵⁶ *Id.*

⁵⁷ *Id.*

⁵⁸ O'Dwyer, *supra* note 7.

⁵⁹ Reddy, *supra* note 53, at 517.

Graphiques et Plastiques (“ADAGP”).⁶⁰ The popular United States collecting societies are the American Society of Composers, Authors and Publishers (“ASCAP”) and Broadcast Music, Inc. (“BMI”), which enforce composers’ and performers’ royalty rights.⁶¹ These organizations manage the rights of creators or rights holders and ensure fair compensation.

In the UK, a Designs and Artists Copyright Society (“DACS”) survey reported that “75% of surveyed artists reinvest their resale royalties into their practice.”⁶² They do so by paying studio costs, purchasing materials, and furthering their professional development.⁶³ Artists with lower selling figures especially benefit from resale royalties.⁶⁴ The 2021 survey also reported that over two-thirds of the royalty payouts were less than \$625 and 10% of the artists were receiving them for the first time.⁶⁵ Circumvention of resale royalties reduces the creative output of an artist, and without resale royalties, many creators may leave the space or simply avoid entering it at all.⁶⁶

2. *The Popularity of Resale Royalties by Contract for NFT Artists*

In the NFT space, resale royalties are used on a contractual basis, rather than as a designated right under U.S. copyright law. Copyright owners have the exclusive rights “to reproduce, prepare derivative works, distribute copies, perform publicly, and display publicly” original works that are “fixed in a tangible medium of expression.”⁶⁷ Though resale royalties are used widely in European copyright law, the United States has not adopted a provision regarding resale royalties for visual artists. Given the limitations of the current copyright system in terms of protection and compensation for visual artists, many artists have found recourse in the nascent NFT market. Early NFT marketplaces bypassed gatekeepers and allowed artists, regardless of popularity or status, to showcase their visual art.⁶⁸ They also allowed creators to “take control of their artistic fate.”⁶⁹ NFT marketplaces like OpenSea, Yuga Labs, Nifty Gateway, and Rarible provided new revenue streams for creators through resale royalties. Artists could earn supplemental revenue from initial and subsequent sales.⁷⁰

In 2022, OpenSea stated that NFT creators earned more than 1.1 billion dollars through resale royalties on its marketplace.⁷¹ Those earnings did not even include sponsorship revenue or engagement incentives.⁷² OpenSea allowed artists to showcase and sell their creations on a

⁶⁰ *Id.* at 516.

⁶¹ *Id.* at 517.

⁶² *DACS’ New Report Sheds Light on Significance of the Artist’s Resale Right (ARR)*, CISAC (Aug. 2, 2023), <https://www.cisac.org/Newsroom/society-news/dacs-new-report-sheds-light-significance-artists-resale-right-arr>.

⁶³ *Id.*

⁶⁴ *Id.*

⁶⁵ *Id.*

⁶⁶ Limit Break Dev, *Introducing ERC721-C: A New Standard for Enforceable On-Chain Programmable Royalties*, MEDIUM (May 9, 2023), <https://medium.com/limit-break/introducing-erc721-c-a-new-standard-for-enforceable-on-chain-programmable-royalties-defaa127410>.

⁶⁷ 17 U.S.C. § 101.

⁶⁸ Sergey Onyshchenko, *The Future of Digital Art: The Rise of NFT Art Marketplaces*, BLAIZE BLOG (Jan. 1, 2024), <https://blaize.tech/article-type/overview/crypto-art-explained/>.

⁶⁹ LEE, *supra* note 24, at xviii.

⁷⁰ ONYSHCHENKO, *supra* note 68.

⁷¹ Lucy Harley-McKeown, *OpenSea Says NFT Creators Earned \$1 Billion in Royalties This Year*, THE BLOCK (Nov. 30, 2022), <https://www.theblock.co/post/190900/opensea-nft-creators-earned-1-billion-royalties>.

⁷² *Id.*

global scale and receive royalties, quickly establishing itself as the leading marketplace.⁷³ While rewarding resale royalties, OpenSea was able to scale the largest marketplace for NFTs.⁷⁴

One artist who was drawn to the NFT market by resale royalties was Laura Connelly. Connelly first discovered NFTs as a platform for selling visual art in the fall of 2021.⁷⁵ Rather than selling single artworks or collections, she created unique storytelling NFTs, similar to a comic book.⁷⁶ “Each NFT could stand alone or collectively, they would tell a story.”⁷⁷ The comic book-style NFTs were called, the Lurkers. She released one NFT from the Lurkers per week for 23 weeks, and her last two sold for more than 20,000 dollars.⁷⁸ Connelly later commented on how NFTs helped establish her career as an artist and how resale royalties provided passive income when her reputation grew.⁷⁹ For Connelly, resale royalties and the NFT market provided support in ways the traditional art market could not.

C. NFT MARKETPLACES HALT THE COLLECTION OF RESALE ROYALTIES DESPITE THE BENEFITS TO ARTISTS

The concept of “zero royalties” policies has caused catastrophic damage, not only to the NFT ecosystem, but also to the enforcement of resale royalties.⁸⁰ “Zero royalties” policies allow traders and marketplaces to unilaterally avoid paying royalties regardless of the desires of the artist.⁸¹ These policies act as a loophole, enabling a trader to purchase an NFT on one platform, move it to another where the royalties are not enforced, and subsequently resell the NFT without the resale royalty attached.⁸²

The expansion of “zero royalties” policies on some NFT marketplaces has forced the hands of the larger players, like OpenSea, to follow in their footsteps to compete effectively.⁸³ The growth of “zero royalties” policy marketplaces has perpetuated the race to the bottom and

⁷³ Christian Edward, *NFT Creators Explore Alternatives as OpenSea Ends Royalties*, MEDIUM (Sept. 27, 2023), <https://medium.com/cryptoniche/nft-creators-explore-alternatives-as-opensea-ends-royalties-430e5f9cd05e#:~:text=The%20Optional%20Nature%20of%20OpenSea%20Royalties&text=Creators%20had%20the%20freedom%20to,sources%20and%20gain%20more%20exposure>.

⁷⁴ Devin Finzer, *OpenSea Raises \$23 Million to Scale the Largest Marketplace for NFTs*, OPENSEA (Mar. 18, 2021), <https://opensea.io/blog/articles/opensea-raises-23m-to-scale-the-largest-marketplace-for-nfts>.

⁷⁵ LEE, *supra* note 24, at 3.

⁷⁶ *Id.*

⁷⁷ *Id.*

⁷⁸ *Id.* at 37.

⁷⁹ *Id.*

⁸⁰ nftjedi, *Zero Royalties Policies on NFT Marketplaces Pose Existential Threat to Web3 and Creators*, NOU NFT (Nov. 11, 2022), <https://nounft.com/2022/11/11/zero-royalties-policies-on-nft-marketplaces-pose-existential-threat-to-web3-and-creators/>.

⁸¹ nftjedi, *Race to the Bottom: Will NFT Creator Royalties Become a Blur?*, NOU NFT (Dec. 7, 2022), <https://nounft.com/2022/12/07/race-to-the-bottom-will-nft-creator-royalties-become-a-blur/>.

⁸² *Id.*

⁸³ See *Race to the Bottom as NFT Marketplaces Refuse to Pay Artist Royalties*, PYMNTS (Oct. 28, 2022), <https://www.pymnts.com/nfts/2022/race-to-the-bottom-as-nft-marketplaces-refuse-to-pay-artist-royalties/>.

generally “eroded the [. . .] willingness to pay royalties throughout the NFT space.”⁸⁴ Some have described this threat to the NFT ecosystem as a “thirst for liquidity.”⁸⁵

D. THE RACE TO THE BOTTOM BETWEEN BLUR AND OPENSEA

The issue of unenforced resale royalties was created by the two largest NFT trading platforms, Blur and OpenSea. These two platforms engaged in a race to the bottom by luring traders to their platforms with the promise to not enforce resale royalty provisions. Late in 2022, OpenSea reinforced its original position and backed resale royalty enforcement.⁸⁶ OpenSea commented, “[i]t’s clear that many creators want the ability to enforce fees on-chain & we believe that choice should be theirs—not a marketplace’s—to make.”⁸⁷ This reflected a decentralized approach. Following this announcement OpenSea released a tool for on-chain royalty enforcement, however, the tool only operated for new collections.⁸⁸ OpenSea continued to enforce royalties on prior collections using existing smart contracts, but these smart contracts were easily circumvented⁸⁹ through a process known as wrapping.⁹⁰ Wrapping an NFT allows it to follow different standards than it was originally intended.⁹¹

At this time, Blur, an upstart marketplace, created a new policy for creator royalties, but this too only applied to new collections that opted in.⁹² Yet, only a few short months after its policy launch, Blur went after OpenSea by reducing its trading fees to zero and cutting royalties altogether.⁹³ OpenSea responded by blocking all collections listed on non-royalty fee-paying platforms, which included Blur.⁹⁴ Blur eventually found a way to bypass the block, and as stated in their announcement, “[they] were trying new things for an unprecedented launch.”⁹⁵ Blur launched a new governance token, which rewarded traders, listers, and bidders.⁹⁶ The launch was indeed unprecedented, and Blur overtook OpenSea as one of the top trading platforms.⁹⁷ OpenSea fought back again by imposing a temporary suspension of royalty rates to defend its market share.⁹⁸

In the crypto winter of 2022, a prolonged period of decline in the value of crypto assets and trading activity, NFT artists watched with great disappointment as OpenSea finally succumbed to

⁸⁴ *Id.*

⁸⁵ Limit Break Dev, *Introducing: Opt-In Programmable Royalties (and More) Through Staking by Limit Break*, MEDIUM (Jan. 10, 2023), <https://medium.com/limit-break/introducing-opt-in-programmable-royalties-and-more-through-staking-by-limit-break-3a166e3749e3>.

⁸⁶ nftjedi, *Zero Royalties Policies on NFT Marketplaces Pose Existential Threat to Web3 and Creators*, *supra* note 80.

⁸⁷ nftjedi, *Race to the Bottom: Will NFT Creator Royalties Become a Blur*, *supra* note 81.

⁸⁸ *Id.*

⁸⁹ *Id.*

⁹⁰ MK Manoylov, *supra* note 1.

⁹¹ *Id.* (For more information, see discussion *infra* Part II A.)

⁹² nftjedi, *Race to the Bottom*, *supra* note 81.

⁹³ *Id.*

⁹⁴ *Id.*

⁹⁵ *Id.*

⁹⁶ William Peaster, *How Blur Can Win*, BANKLESS, <https://www.bankless.com/can-blur-kill-opensea> (last visited Nov. 21, 2024).

⁹⁷ *Id.*

⁹⁸ *Id.*

pressure from Blur.⁹⁹ In February 2023, Blur announced that it would enforce a nominal rate of 0.5% royalties on its platform, but only if artists blocked OpenSea from listing their NFTs.¹⁰⁰ In desperation, OpenSea responded by making all off-chain royalties, agreements between parties that are not automatically enforced by the blockchain, optional.¹⁰¹ Shortly after, royalty collection on OpenSea dropped from \$354,008 to \$83,970, representing a crippling 76% decrease.¹⁰² As discussed below, a race to the bottom inevitably leads to unhealthy centralization in the NFT space.

1. The Centralization of Royalty Policies in a Few Dominant Marketplaces Goes Against the Goal of Web3

The drastic shift in the ecosystem from supporting creator resale royalties to moving to “zero-royalties” policies has exposed major flaws in the operation of the NFT market.¹⁰³ Web3 has a goal of returning to a more decentralized Internet instead of dominance by Big Tech platforms.¹⁰⁴ Decentralization is a slippery term, however. Some people may incorrectly equate decentralization with a “no holds barred,” “wild west” environment in which corporations and online platforms operate without oversight.¹⁰⁵ But, when a few platforms dominate the entire market, their decisions are the epitome of centralization. Despite the appearance of a decentralized system, the structure is “fundamentally biased against creators.”¹⁰⁶ Decentralization does not equate to avoiding fees. As one may put it, “you still have to pay your bills.”¹⁰⁷ A truly decentralized NFT ecosystem would allow for creators to have a choice of whether or not to use resale royalties,¹⁰⁸ rather than allowing marketplaces to act with veto-like power and remove the creator’s choice for their desired royalties.¹⁰⁹ For the creators, the choice lies in their ability to set royalty rates. For the traders, the choice is in deciding whether a given collection or marketplace is one they want to support.¹¹⁰

Until recently, most NFT marketplaces enabled artists to set resale royalties for their collections or individual NFTs.¹¹¹ OpenSea permitted a maximum of 10% royalty rate, while Rarible’s maximum was a 50% royalty rate.¹¹² When OpenSea announced its discontinuation of resale royalties, it sparked an abundance of backlash.¹¹³ For many creators, resale royalties have been a lifeline and enabled them to earn a share of the value from the sales of their intellectual

⁹⁹ Brian L. Frye, *Royalties and the New Collector Economy*, RIGHT CLICK SAVE (Feb. 27, 2023), <https://www.rightclicksave.com/article/royalties-and-the-new-collector-economy>.

¹⁰⁰ *Id.*

¹⁰¹ *Id.*

¹⁰² EDWARD, *supra* note 73.

¹⁰³ Limit Break Dev, *Introducing ERC721-C*, *supra* note 65.

¹⁰⁴ Conversation with Edward Lee, *supra* note 2.

¹⁰⁵ *Id.*

¹⁰⁶ *Id.*

¹⁰⁷ Sillytuna, *How to Perform a Critical Hit on NFTs: Remove Royalties*, MEDIUM (Oct. 19, 2022), <https://sillytuna.medium.com/how-to-perform-a-critical-hit-on-nfts-remove-royalties-a230adbc7064>.

¹⁰⁸ Conversation with Edward Lee, *supra* note 2.

¹⁰⁹ *Id.*

¹¹⁰ SILLYTUNA, *supra* note 108.

¹¹¹ FRYE, *supra* note 100.

¹¹² *Id.*

¹¹³ EDWARD, *supra* note 73.

property.¹¹⁴ OpenSea’s announcement meant that this once-reliable income stream disappeared without input from the creators relying on it.

2. Many Existing NFTs Lack “On-Chain” Enforcement of Royalties

Many existing NFTs are vulnerable to the decisions of centralized marketplaces and platforms because the popular smart contract (ERC-721) lacks “on-chain” enforcement of royalties. The ERC-721 token is the most widely used standard for NFTs on the Ethereum blockchain.¹¹⁵ The ERC-721 rose to popularity on the Ethereum blockchain because it provides a blueprint for creating indivisible and unique tokens,¹¹⁶ which are especially important for visual artists. The primary uses of the ERC-721 have been on digital collectibles, digital art, and virtual real estate.¹¹⁷ Despite its popularity, the ERC-721 standard does not have royalties built in at the token level.¹¹⁸ The standard covers minting, ownership transfer, and metadata, but has no economic feature.¹¹⁹ With the ERC-721, royalties are not fully enforceable on-chain, which allows for marketplaces to have significant influence over the enforcement of royalty payments.¹²⁰ The artist royalty provisions on this standard are often described as a “social contract.”¹²¹ This social contract simply *allows* for the payment, but cannot guarantee it, making circumvention of royalties commonplace.¹²²

As previously discussed, “wrapping” an NFT is one way in which traders have been able to circumvent royalties. The wrapper “acts like a box” that covers up the contract standard inside.¹²³ Applying this logic to resale royalties, if a token standard like ERC-2981—which does send royalties to the original artist—is wrapped with an ERC-721 box and passed through an ERC-721 contract, the transaction would be affirmed without the royalties.¹²⁴ This mode of circumvention can be combatted by preventing transfers between wallets, but it does not solve the issue entirely.¹²⁵

The ERC-721 token standard has a function known as “transfer from.”¹²⁶ This allows traders to move NFTs between addresses and sell on marketplaces, regardless of whether that marketplace enforces royalties.¹²⁷ A transfer does not equate to a sale and may occur for a

¹¹⁴ *Id.*

¹¹⁵ Fredrick van Staden, *ERC721 NFTs Decoded: Understanding Approvals and Ownership*, LINKEDIN (July 18, 2023),

<https://www.linkedin.com/pulse/erc721-nfts-decoded-understanding-approvals-ownership-van-staden/>.

¹¹⁶ *Id.*

¹¹⁷ *Id.*

¹¹⁸ XP.Network, *The Battle for NFT Royalties*, MEDIUM (June 25, 2023), <https://blog.xp.network/the-battle-for-nft-royalties-meet-the-erc-2981-erc-4920-and-erc-721c-b71d6ba28acf>.

¹¹⁹ *Id.*

¹²⁰ Andrew Cahill, *ERC721-C NFTs Explained*, MILK ROAD, <https://milkroad.com/guide/erc721-c/> (last updated June 22, 2023).

¹²¹ *Id.*

¹²² Michael D. Murray, *NFTs Rescue Resale Royalties? The Wonderfully Complicated Ability of NFT Smart Contracts to Allow Resale Royalty Rights*, 14 CASE W. RES. J.L. TECH. & INTERNET 208 (2023).

¹²³ MANOYLOV, *supra* note 1.

¹²⁴ *Id.*

¹²⁵ Justin Kuepper, *The Ultimate Guide to NFT Royalties*, ZENLEDGER (May 8, 2023), <https://zenledger.io/blog/the-ultimate-guide-to-nft-royalties/>.

¹²⁶ MANOYLOV, *supra* note 1.

¹²⁷ *Id.*

multitude of reasons, such as a user’s desire to exchange a token between wallets.¹²⁸ Disabling the “transfer from” would prevent the NFT from moving between wallets altogether.¹²⁹ Royalties can be circumvented, “as long as you allow the holder of the NFT to send the NFT to another address, it’s impossible to stop a marketplace from using that function to do the transaction.”¹³⁰

E. THE PROBLEMS CAUSED BY THE LACK OF ENFORCEMENT OF ARTISTS’ RESALE ROYALTIES

Popular smart contracts do not guarantee resale royalties, they merely allow for a payment to be possible, which leads to devastating consequences for both artists and collectors.¹³¹ NFT royalties on smart contracts lack legal enforcement or any methods to ensure accountability, so the smart contract “is only as good as the platform’s commitment to uphold” the royalties.¹³² Resale royalties are the “beating heart” and core promise of Web3.¹³³ They ensure that artists receive a cut of the profit of their work on the secondary market.¹³⁴ To many artists, a lack of enforcement of resale royalties “amounts to theft by the marketplace.”¹³⁵

1. Circumventing Royalties Hurts Artists

Visual artists have endlessly struggled to receive adequate compensation to sustain themselves.¹³⁶ A United States survey from April 2020, reported that the average artist expected to make \$17,000 that year, which is an amount far below the poverty line.¹³⁷ NFT artist Krista Kim explained that “trying to make it in the art world is probably one of the hardest things you can possibly do,” and “sometimes you don’t even get paid.”¹³⁸ The lack of enforcement of resale royalties removes the possibility of passive income and creates a further strain on an artist’s financial stability.¹³⁹

¹²⁸ *Id.*

¹²⁹ *Id.*

¹³⁰ *Id.*

¹³¹ MURRAY, *supra* note 123.

¹³² John Gilbert & Ornella Hernandez, *How NFT Royalties Work – and Sometimes Don’t*, BLOCKWORKS (Nov. 4, 2022), <https://blockworks.co/news/nft-royalties-sometimes-they-work-sometimes-they-dont>.

¹³³ Benjamin James, *Is Web3’s Promise of Creator Royalties Broken?*, BILLBOARD (Dec. 16, 2022), <https://www.billboard.com/pro/nft-creator-royalties-cut-web3-artists-reaction/>.

¹³⁴ *Id.*

¹³⁵ *Id.*

¹³⁶ LEE, *supra* note 24.

¹³⁷ Peggy McGlone, *Survey Reveals a Dire Situation for Independent Artists, with Almost Two-Thirds Now Unemployed*, WASH. POST (Apr. 24, 2020), https://www.washingtonpost.com/entertainment/survey-reveals-a-dire-situation-for-independent-artists-with-almost-two-thirds-now-unemployed/2020/04/23/3b87de7c-8598-11ea-878a-86477a724bdb_story.html.

¹³⁸ LEE, *supra* note 24, at 16.

¹³⁹ EDWARD, *supra* note 73.

2. Volatile Marketplaces

When X2Y2 and Blur cut out creator royalties, traders abandoned OpenSea in droves.¹⁴⁰ The OpenSea market share went from a high of 80% down to 45% in November of 2022.¹⁴¹ OpenSea claims that in the first week of November alone, more than 1 million dollars of creator royalties were circumvented.¹⁴² In fear of losing more market share, OpenSea launched its blocking tool.¹⁴³ In February of 2023, after its battle with Blur, OpenSea was overtaken by Blur as the leading marketplace.¹⁴⁴ Blur had generated 460 million dollars' worth of Ethereum NFT trades in seven days, which was a 361% increase from the previous time span.¹⁴⁵ Meanwhile, OpenSea was just \$107 million, reflecting only a 12% increase within the same time period.¹⁴⁶ Implications of the interactions between OpenSea, X2Y2, and Blur showcase how the circumvention of resale royalties makes the NFT market volatile and unpredictable. When one market removes resale royalty enforcement, traders flock to those markets to avoid royalty payments on their subsequent sales, leaving other marketplaces in turmoil.¹⁴⁷

3. Attempts to Address the Problem

There have been several attempts to address the problem of circumvention of resale royalties and the centralized, unilateral decision-making of marketplaces. As discussed below, recently, there have been flickers of activity by some marketplaces that indicate an upcoming shift in the policies around resale royalty enforcement. Yet, these advances still do not entirely solve the problem.

a. Yuga Labs and Magic Eden

Major NFT players have begun to take back control of resale royalty enforcement, sparking a “royalty enforcement trend.”¹⁴⁸ On February 27, 2024, Magic Eden,¹⁴⁹ collaborating with Yuga Labs,¹⁵⁰ created a new Ethereum platform to honor creator royalties.¹⁵¹ This new platform has a filter feature on the smart contracts of some of the NFT collections, which functions to restrict trading of these NFTs to only pro-royalty markets. Magic Eden also introduced ERC721-C token compatibility¹⁵² and a Creator Alliance program, an initiative to promote a sustainable royalty

¹⁴⁰ JAMES, *supra* note 134.

¹⁴¹ *Id.*

¹⁴² Andrew Hayward, *Blur Overtakes Opensea as Ethereum NFT Trading Skyrockets*, DECRYPT (Feb. 20, 2023), <https://decrypt.co/121768/blur-opensea-ethereum-nft-trading-skyrockets>.

¹⁴³ *Id.*

¹⁴⁴ *Id.*

¹⁴⁵ *Id.*

¹⁴⁶ *Id.*

¹⁴⁷ *Id.*

¹⁴⁸ Okoya David, *Yuga Labs Sparks NFT Royalty Enforcement Trend, De Labs Joins*, DAILYCOIN (Feb. 28, 2024), <https://dailycoin.com/yuga-labs-sparks-nft-royalty-enforcement-trend-de-labs-joins/>.

¹⁴⁹ Magic Eden is a marketplace for minting, buying and selling NFTs.

¹⁵⁰ Yuga Labs is a blockchain-based company that develops NFTs and collectibles.

¹⁵¹ *Magic Eden's Ethereum Marketplace with Yuga Labs Now Live*, STREETINSIDER (Feb. 27, 2024), <https://www.streetinsider.com/PRNewsWire/Magic+Eden%27s+Ethereum+Marketplace+with+Yuga+Labs+Now+Live/22839404.html>.

¹⁵² *Id.*

framework in the NFT industry.¹⁵³ De Labs, the creator of the popular DeGods NFT collection, was quick to follow Yuga Labs which could indicate “an emerging trend that could reshape the NFT market.”¹⁵⁴ Similarly, De Labs disclosed that they had updated their code to only permit transactions on marketplaces that enforce royalties.¹⁵⁵ De Labs Chief Technical Officer, “Chills,” further elaborated that “listings on OpenSea and Blur will remain until people delist, but they are not buyable anymore.”¹⁵⁶

b. Limit Break’s Creator Token Contracts (ERC721-C)

On May 9, 2023, Limit Break’s¹⁵⁷ CEO, Gabriel Leydon, announced to the community of NFT creators a new solution for enforceable royalties and programmable royalty contracts.¹⁵⁸ The initial goal of the contract was to put the power in the creators’ hands to decide how royalties would be distributed on the ERC721-C smart contract.¹⁵⁹ The royalty contract works on any ERC721-C contract through a staking solution, where users lock a certain amount of tokens to activate the royalty mechanism, and is opt-in and backward-compatible.¹⁶⁰ Through these “Creator Tokens,” Limit Break has intentionally aligned with the ethos of Web3: backward compatibility and the freedom of choice that is found in decentralized markets.¹⁶¹ The design of the Creator Token contracts is constructed around three principles: (1) creator flexibility, (2) immutability, and (3) simplicity.¹⁶² First, creators should have the ability to define how their NFTs are used, and without proper mechanisms, they cannot enforce their contracts.¹⁶³ Furthermore, making smart contracts immutable guarantees reliability as the rules are everchanging within marketplaces.¹⁶⁴

Compared to ERC-721 and ERC1155, the most commonly created and traded types of NFT standards, ERC721-C allows creators to block zero-fee exchanges from selling their work on those platforms.¹⁶⁵ ERC721-C seems to effectively eliminate the circumvention of resale royalties and make on-chain royalties enforceable at the token level.¹⁶⁶ This means that the creator would be able to program the royalty rate for each NFT they create.¹⁶⁷ On April 2, 2024, OpenSea announced that artists on their platform were now able to use the ERC721-C contracts

¹⁵³ Web3 DAO, *Magic Eden Launches Creator’s Alliance Program: Empowering NFT Creators with Royalties*, LINKEDIN (Feb. 15, 2024), <https://www.linkedin.com/pulse/magic-eden-launches-creators-alliance-program-empowering-nft-royalties-xyxif/>.

¹⁵⁴ DAVID, *supra* note 149.

¹⁵⁵ *Id.*

¹⁵⁶ *Id.*

¹⁵⁷ Limit Break is a blockchain-based gaming company. *See* LIMIT BREAK, <https://limitbreak.com/index.html> (last visited Nov. 21, 2024).

¹⁵⁸ Limit Break Dev, *Introducing ERC721-C*, *supra* note 65.

¹⁵⁹ *Id.*

¹⁶⁰ *Id.*

¹⁶¹ Limit Break Dev, *Introducing: Opt-In Programmable Royalties*, *supra* note 84.

¹⁶² *Id.*

¹⁶³ *Id.*

¹⁶⁴ *Id.*

¹⁶⁵ Langston Thomas, *What is ERC721-C, and Could It Solve Web3’s Royalty Issues?*, NFTNOW (May 24, 2023), <https://nftnow.com/features/what-is-erc721-c-and-could-it-solve-web3s-royalty-issues/>.

¹⁶⁶ Limit Break Dev, *Introducing ERC721-C*, *supra* note 66.

¹⁶⁷ Thomas, *supra* note 166.

to set and enforce creator earnings, which indicates a shift back towards enforcement of royalties.¹⁶⁸ OpenSea launched a new version of their marketplace protocol and introduced “Seaport Hooks”, which allows creators to set transfer conditions.¹⁶⁹ In addition, this new functionality allows creators to adapt Seaport to be compatible with the ERC721-C Standard.¹⁷⁰

One may ask, why has this practice not become the standard? Despite growing interest throughout the NFT space, the Creator Token Contracts are complex, which might require marketplaces to update their platforms to accommodate the contracts.¹⁷¹ This may not be achievable until Web3 sees viability of successful collections that implement the new standard.¹⁷² It may be too early now, when the NFT market is still recovering from a downturn.¹⁷³

II. PROPOSAL: ERC721-C AND A COLLECTING SOCIETY TO ENFORCE RESALE ROYALTIES

At its current stage, it is not clear if the ERC721-C token alone can provide the support artists need. Part II proposes a promising solution to the circumvention of resale royalties through the use of the newly designated ERC721-C smart contract in collaboration with a collecting society.

A. RECENTRALIZATION THROUGH ERC721-C

The proposal intends to use smart contracts to provide some centralized control in a manner that does not defeat the objectives of decentralization in Web3 and the NFT market. Particularly, using the ERC721-C contract will allow artists to customize the sale and provisions of their collections while upholding the decentralized concept of choice in the market.

1. Elements of the Successful ERC721-C Contract

Unlike ERC-721, the ERC721-C has the potential to eliminate the circumvention of royalties through the use of transfer security policies.¹⁷⁴ The new transfer security policies will ensure on-chain enforcement by allowing creators to decide how token transfers operate for their collections.¹⁷⁵ Essentially, ERC721-C gives creators the ability to choose their preferred distribution platforms and allows interaction only on contracts they deem useful, thereby ensuring that only trusted platforms and applications can facilitate transactions.¹⁷⁶ See descriptions of the seven levels of transfer security in Table 1 below.¹⁷⁷

¹⁶⁸ OpenSea Crew, *Creator Earnings: ERC721-C Compatibility on OpenSea*, OPENSEA (Apr. 2, 2024), <https://opensea.io/blog/articles/creator-earnings-erc721-c-compatibility-on-opensea>.

¹⁶⁹ *Id.*

¹⁷⁰ *Id.*

¹⁷¹ *Id.*

¹⁷² *Id.*

¹⁷³ Interview with Edward Lee, Professor, Chicago-Kent College of Law (Mar. 25, 2024) (notes on file with author).

¹⁷⁴ Limit Break Dev, *Introducing ERC721-C*, *supra* note 66.

¹⁷⁵ *Id.*

¹⁷⁶ *Id.*

¹⁷⁷ *Id.*

Table 1: Transfer Security Policies Levels¹⁷⁸

LEVEL	DESCRIPTION	EXPLANATION
0	Most relaxed level: any caller can initiate a token transfer to any receiver without restrictions.	This is the least restrictive level. Any user or contract can transfer tokens to any other user or contract, with no requirements or restrictions
1	Caller must be whitelisted as an operator or token owner, no constraints on the receiver.	Only a whitelisted operator or the token owner can initiate the transfer. However, there are no restrictions on the recipient (any address can receive the token, whether it is an EOA or smart contract).
2	Caller must be whitelisted as an operator; OTC transfers by token owner not allowed; no constraints on the receiver.	Only whitelisted operators (not the token owner) can initiate transfers. OTC transfers by the token owner are not allowed, but the recipient can still be any address (EOA or smart contract)
3	Caller must be whitelisted as an operator or token owner; receiver cannot be a smart contract; optional contract receivers allowlist available.	The caller can either be the token owner or an operator. However, the recipient cannot be a smart contract—only EOAs can receive the token. Optionally, there is a list of approved smart contracts that can still receive tokens.
4	Caller must be whitelisted as an operator or token owner; receiver must be an EOA; optional contract receivers allowlist available.	The caller must either be the token owner or an operator. The recipient must be an EOA (no smart contracts allowed). There is an optional list of smart contracts that can still be allowed as receivers.
5	Caller must be whitelisted as an operator; OTC transfers by token owner not allowed; receiver cannot be a smart contract; optional contract receivers allowlist available.	Only a whitelisted operator can initiate the transfer (not the token owner), and OTC transfers by the token owner are not allowed. The recipient cannot be a smart contract, but there is an optional list of approved contract receivers
6	Caller must be whitelisted as an operator; OTC transfers by token owner not allowed; receiver must be an EOA;	Only a whitelisted operator can initiate the transfer, and OTC transfers by the token owner are not allowed. The

¹⁷⁸ In reference to *Table 1*, a caller is the person or entity initiating the transfer. Whitelisted refers to an approved list of addresses or individuals allowed to perform specific actions like a transfer. If whitelisted, the action can be performed without restriction. OTC (over-the-counter) means token transfers initiated by the token owner, bypassing an intermediary or marketplace. EOA (externally owned account) is an account that is not controlled by a smart contract.

	optional contract receiver's allowlist available.	recipient must be an EOA (no smart contracts), though an optional list of approved contract receivers is available.
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The transfer security policies are a combination of three important values: (1) a predefined transfer security level; (2) an operator whitelist ID that points to the desired whitelist; and (3) an optional permitted contract receivers allow list ID that points to a list of contracts permitted to receive token transfers.¹⁷⁹ In total, there are seven predefined transfer security levels.¹⁸⁰ For levels 0, 1, and 2, it is possible that the security measures can be bypassed by wrapper tokens; however, the creator can upgrade to levels 3 through 6, which will block this behavior entirely.¹⁸¹ Not only does ERC721-C provide the enforcement mechanism, but it also makes it possible to build novel programmable royalty contracts.¹⁸² Basic royalties, minter-only royalties, shared royalties, and even transferrable royalties are all feasible on ERC721-C.¹⁸³

ERC721-C is accessible even to those who don't know how to or don't want to code.¹⁸⁴ FreeNFT's Minting Press, a software program that runs on a blockchain, streamlines the process of development and initialization of the ERC721-C contracts from Ethereum and Polygon, while significantly reducing the price of development.¹⁸⁵ Once ERC721-C is integrated, artists will receive their royalty payments regardless of the platform's policy.¹⁸⁶ ERC721-C is truly revolutionary, but implementation is still in its early stages.

2. The Collecting Society

The proposed NFT collecting society would follow the models of similar copyright-collecting societies like ASCAP, BMI, SPADEM, and ADAGP.¹⁸⁷ The collecting society would operate as follows: first, the artist or their heirs would join as members of the collecting society. By joining, the artist could register their works for protection with the organization. The registration process would allow the society to know which work's secondary sales they are responsible for monitoring. After the works are registered, the society would be able to monitor the resale of the works on the secondary market. NFT blockchain technology would make this system particularly effective because it automatically tracks the recorded transactions on the block.¹⁸⁸ Upon resale, the collecting society would track the sale and confirm the correct resale payout based on the artist's set royalty. Once the royalty is collected, the society would distribute the royalties to the entitled artist or their heirs.

Joining the collecting society would be entirely optional for the artist. If the artist had deployed the ERC721-C at security transfer levels 3-6, the collecting society would not be necessary for the enforcement of the artists' prescribed royalties because the NFT would not be

¹⁷⁹ Limit Break Dev, *Introducing ERC721-C*, *supra* note 66.

¹⁸⁰ *Id.*

¹⁸¹ *Id.*

¹⁸² *Id.*

¹⁸³ *Id.*

¹⁸⁴ *Id.*

¹⁸⁵ *Id.* See also *The Minting Press*, LIMITBREAK, developers.freenft.com (last visited Nov. 21, 2024).

¹⁸⁶ DAVID, *supra* note 149.

¹⁸⁷ KASTRENAKES, *supra* note 14.

¹⁸⁸ BECHER, *supra* note 4.

able to be wrapped.¹⁸⁹ For artists who have deployed security transfer levels 0-2, the collecting society would provide additional support for the enforcement of their resale royalties, especially if the artists decide not to upgrade the security level. For all other collections that are not on the ERC721-C standard, the collecting society could be the enforcement option that provides the support their current token standard does not. Additionally, if a marketplace does not honor royalties, the collecting society would have more power to bring a breach of contract suit than an individual artist would.¹⁹⁰ This mechanism of enforcement could help to provide a legal remedy where one would not have been likely before.

Collecting societies employed in other arenas also advocate for the rights of the artist members, which would be implemented in this proposed solution. The collecting society, in collaboration with artists, could help to establish standards for NFT resale transactions, which could promote transparency, accountability, and decentralized stability. ERC721-C coupled with a collecting society can provide the support needed to ensure enforcement of resale royalties while ERC721-C is still in its implementation stage, for collections that are not compatible, or for collections with lower-level transfer security collection settings.

B. BENEFITS OF THE PROPOSAL

The proposal should be adopted because it provides a solution to the current royalty circumvention crisis in the NFT market. The proposal encourages the creation of new visual art and embodies equity and fairness. It also allows “artists to take control of their artistic fate”¹⁹¹ while creating a sustainable path forward to create a long-term market.

1. Incentivizes Creation

Adoption of the proposed ERC721-C and a collecting society would incentivize artist creation because they can rely on the enforcement of their predetermined resale royalties. Enforcement of resale royalties encourages artists to create new, high-quality content, especially because doing so means they will receive ongoing compensation from the subsequent sale of their work.¹⁹² Resale royalties were and continue to be the key motivator for artists entering the market.¹⁹³ Emerging artists who do not have high initial sales prices are encouraged to enter the market because there are opportunities for passive income, reducing the financial pressure on artists and allowing them more creative freedom. Royalties have not only broken barriers to entering the art world but can result in cheaper minting costs and substantially impact the success of an NFT project.¹⁹⁴

¹⁸⁹ Limit Break Dev, *Introducing ERC721-C*, *supra* note 66.

¹⁹⁰ *But see infra* Part III D (breach of contract suits are likely not plausible against traders who circumvent, due to anonymity).

¹⁹¹ Interview with Edward Lee, *supra* note 2.

¹⁹² Pavithra Umashankar, *The Rise of NFT Royalties: Game-Changer For Artists & Investors In 2023*, MEDIUM (Mar. 6, 2023), <https://medium.com/coinmonks/the-rise-of-nft-royalties-game-changer-for-artists-investors-in-2023-78f679bdba2d>.

¹⁹³ Sarthak Dwivedi, *NFT Royalty Dilemma*, WOOD STOCK FUND BLOG, <https://blog.woodstockfund.com/2022/12/01/royalty-distribution-and-future-of-nfts/> (last visited Apr. 27, 2024).

¹⁹⁴ *Id.*

Protection of artists' resale rights allows for them to “monetize their work outside of the legacy models.”¹⁹⁵ Generally speaking, the traditional art world is controlled by collectors, auction houses, and professional galleries, but the NFT market allows for the artists to control the sale of their art.¹⁹⁶ This control enables artists to continue creating and building their career while also supporting their financial stability in the short term. If royalties are not enforced, the NFT ecosystem could face a decline in artist innovation. Artists rely on royalties as a key revenue stream, which allows them the financial freedom to experiment with new concepts, styles, and technologies.¹⁹⁷

Additionally, by making royalty enforcement standard practice, the proposal would likely help stabilize the market and foster trust in marketplaces. Marketplace undercutting—where platforms set zero-royalty policies to attract users—would likely be reduced, giving creators confidence that their work will be compensated fairly in the secondary market. This certainty would incentivize continued creation, build trust, and encourage more consistent participation from both creators and collectors. With a reliable system in place, the NFT ecosystem would become more stable, sustainable, and artist-friendly

2. Equity and Fairness

This proposal embodies equity and fairness for the artists who are central to the NFT market. Those who engage with art—whether by enjoying, purchasing, or viewing it—have a stake in ensuring the rights of creators are protected and upheld.¹⁹⁸ The underpinnings of this view go back to the origins of *droite de suite* and the struggling artist theory.

In 2022, arts and cultural industries contributed 4.3% (1.1 trillion dollars) of gross domestic product to the U.S. economy.¹⁹⁹ Yet, artists historically have been and continue to be underpaid.²⁰⁰ Artists are not only a significant part of the economy, but they also enhance the public's well-being by creating spaces for interpreting and feeling.²⁰¹ Their art brings beauty and creativity to our lives. Art plays a vital role in culture and should be supported with a system that allows artists to thrive and continue contributing to society. The ERC721-C and a collecting society have the power to enforce resale royalties in a way that remedies these disparities and gives the artist power over their career, which in turn will help satiate the public's desire for new art.

¹⁹⁵ Theo Goodman, *Royalties and NFTs – The Goalposts Have Been Moved*, MEDIUM (Nov. 5, 2023), <https://theogoodman.medium.com/royalties-and-nfts-the-goalposts-have-been-moved-87673106fb97>.

¹⁹⁶ Noelia Gamallo, *Why Royalties Are the Future of the Art World*, RIGHT CLICK SAVE (July 28, 2023), <https://www.rightclicksave.com/article/why-royalties-are-the-future-of-the-art-world-artists-resale-rights>.

¹⁹⁷ Simon De La Rouviere, *Why NFT Royalties Matter*, SCENES WITH SIMON (Mar. 5, 2023), https://sceneswithsimon.com/p/why-nft-royalties-matter?utm_source=publication-search.

¹⁹⁸ GAMALLO, *supra* note 197.

¹⁹⁹ *Arts & Cultural Sector Hit All-Time High in 2022 Value Added to U.S. Economy*, NAT'L ENDOWMENT FOR ARTS (Mar. 25, 2024), <https://www.arts.gov/news/press-releases/2024/arts-cultural-sector-hit-all-time-high-2022-value-added-us-economy#:~:text=Washington%2C%20DC%E2%80%94New%20data%20released,trillion%2C%20to%20the%20U.S.%20economy>.

²⁰⁰ Interview with Edward Lee, *supra* note 174.

²⁰¹ Jane Claire Hervey, *This Is Why the World Needs Artists*, FORBES (Feb. 27, 2018), <https://www.forbes.com/sites/janeclairehervey/2018/02/27/this-is-why-the-world-needs-artists/?sh=219aa1da3f70>.

III. CRITICISMS OF SMART CONTRACTS AND RESALE ROYALTIES

Critics might object to this proposal of slight recentralization of the NFT market through the use of ERC721-C token standards and collecting societies because, among other things, it seemingly contradicts decentralization objectives. The main potential criticisms are addressed in the following part of the article.

A. DISCOURAGES TRADERS FROM PURCHASING

The first objection to consider is the detrimental effect on sale volumes on marketplace platforms by enforcing resale royalties. In the eyes of a trader, marketplace elimination of resale royalties or rather the disregarding of them called for celebration. For the traders interested in short-term speculative gains, the marketplaces' decisions allowed traders to maximize their gains without having to marginally share the profit with creators.²⁰² Some might argue that using the proposed mechanisms to provide some stability and support to the artists will result in a downturn in the NFT market.

This objection is misplaced for two reasons. First, resale royalties can benefit collectors. "Collectors profit from the reputational reward" of the art and artists they support.²⁰³ The creators investing in an artist's career are the catalyst for their future creations.²⁰⁴ Many collectors who genuinely believe in the art they buy tend to advocate for royalties, seeing them as a way to ensure that artists are fairly compensated and can continue creating the work they love.²⁰⁵ The traders motivated by short-term gain don't see the benefit in the resale royalties, but for the health of the entire market, their views should be discounted.

Second, certain studies of the NFT market have shown that when resale royalties are not enforced, platforms lose creators and the communities that follow them.²⁰⁶ The objection presumes that without the additional cost or royalties, traders will buy and sell more NFTs on the non-enforcing platform. Yet, this objection fails to consider that the artists are the driving force of NFT's popularity.²⁰⁷ Without the ability to enforce resale royalties, artists will be less interested in selling their work on these marketplaces.²⁰⁸ While there may be a temporary increase in sales volumes on marketplaces that don't enforce royalties, in the long run, the growth of the whole NFT ecosystem will be detrimentally affected. If the artists leave the NFT market, so does their art. Without their art, there will be less to trade and purchase.

²⁰² Natalee, *The Unforeseen Consequences of Removing Royalties: A Look at the NFT Ecosystem*, NFT CULTURE, <https://www.nftculture.com/guides/the-unforeseen-consequences-of-removing-royalties-a-look-at-the-nft-ecosystem/> (last visited Apr. 27, 2024).

²⁰³ GAMALLO, *supra* note 197.

²⁰⁴ *Id.*

²⁰⁵ *Id.*

²⁰⁶ Cam Thompson, *Retract Royalties, Reduce Revenue: NFT Creators Are Suffering, and So Are Marketplaces*, COINDESK (Nov. 4, 2022), <https://www.coindesk.com/web3/2022/11/04/retract-royalties-reduce-revenue-nft-creators-are-suffering-and-so-are-marketplaces/>.

²⁰⁷ Jake Prins, *The Importance of Creator Royalties*, UNIVERSAL PAGE (Dec. 6, 2022), <https://universal.page/blog/the-importance-of-nft-royalties>.

²⁰⁸ *Id.*

B. RECENTRALIZATION

A second criticism that might arise from the proposal is that implementing the ERC721-C and a collecting society is antithetical to the ethos of decentralization. Views on what decentralization means differ widely across the ecosystem. Many believe that the NFT market should be a lawless and unregulated space.²⁰⁹ These critics might contend that the market would become highly centralized with strict enforcement of royalties and a collecting society.

This criticism is unjustified because allowing the artist to choose to enforce their desired royalty shifts the control back to individual artists, rather than allowing dominant marketplaces to dictate terms. This allows creators to have autonomy and agency and benefit directly from their work instead of being compelled to adhere to policies that are contrary to their desires. This premise aligns with the ethos of decentralization of empowering the artist, even if achieved through forms that would typically be seen as centralized. Reasonable regulation will ultimately benefit both the creators and the traders.

C. BREACH OF CONTRACT LAWSUITS

A common objection that might be raised by critics is that artists should pursue breach of contract lawsuits, rather than imposing controlling resale royalty provisions and collecting societies. In its simplest form, a contract is a promise or set of promises that rely upon an offer, consideration, and acceptance by the parties.²¹⁰ A breach of contract occurs when a party fails, without justification, “to perform all or any part of what is promised in a contract.”²¹¹ Upon the failure of the duty to perform, the law offers a remedy, usually in terms of monetary damages.²¹² In the NFT space, when a trader or marketplace circumvents the resale royalty provisions enacted by the artist this would indeed be a breach of contract, however, litigation for damages is not the most effective solution.

A breach of contract suit might be successful, but only against marketplaces, not individual traders. The pseudonymous nature of the blockchain NFT market makes it increasingly difficult to enforce a breach of contract lawsuit.²¹³ Many people who use the NFT market maintain anonymity to enhance the privacy and security of their identities on the blockchain.²¹⁴ Anonymity is achieved by using pseudonymous addresses which are essentially strings of characters representing that user’s identity.²¹⁵ These identities are not linked or tied to a user’s real-world identity making it very difficult to trace their activities.²¹⁶ Pseudonymity is similar in that the user can create a fictional persona to interact with the market without revealing their identity. Still, it does not offer the same degree of privacy.²¹⁷

Anonymity and pseudonymity make it nearly impossible for a potential plaintiff to initiate a breach of contract lawsuit against an individual trader. If one doesn’t know who

²⁰⁹ Interview with Edward Lee, *supra* note 2.

²¹⁰ Restatement (Second) of Contracts §§1-2, 178 (Am. L. Inst. 1981).

²¹¹ *Id.*

²¹² *Id.*

²¹³ Interview with Edward Lee, Professor, Chicago-Kent College of Law (Mar. 18, 2024) (notes on file with author).

²¹⁴ *Pseudonymity and Anonymity: Be Untraceable in the Blockchain World*, IMMUNEBYTES (Apr. 25, 2024), <https://www.immunebytes.com/blog/pseudonymity-and-anonymity-be-untraceable-in-the-blockchain-world/>.

²¹⁵ *Id.*

²¹⁶ *Id.*

²¹⁷ *Id.*

someone is or where they reside, serving that individual becomes an arduous process. Generally speaking, litigating with an anonymous or pseudonymous individual will be costly, as the investigation to uncover the breacher's true identity would incur prohibitively high costs. For some artists, this would not be the simple effective solution they are looking for to recoup their circumvented royalties. The challenges of enforcing resale royalties, particularly in an environment where anonymity and pseudonymity hinder legal recourse, highlight the need for a more robust solution. The proposed remedy of the ERC721-C smart contract in collaboration with a collecting society is a promising approach to addressing the circumvention of resale royalties. By leveraging these tools, artists can regain control over their royalties and ensure their enforcement.

CONCLUSION

Widespread dissemination and compatibility of the ERC721-C token standard, coupled with a collecting society would address the shortcomings of the current NFT market. Resale royalty provisions on smart contracts have been easily circumvented by traders and marketplaces looking to make the largest profit margins. Under the proposed solution, artists would have more control over prescribing and enforcing their resale royalty rates. This regulatory solution would also have reinforcement through collecting societies until ERC721-C has widespread use in the market. This solution would expand options for both artists and traders, reinforce the principles of decentralization and bring greater stability to the market.