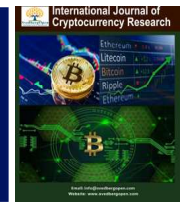




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Expanding Web3: Transforming the Collectibles Market Across Diverse Asset Classes

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Abstract

The collectibles market, encompassing diverse assets such as fine art, rare books, and sports memorabilia, faces significant challenges in authentication, provenance tracking, and liquidity. Web3 technologies, particularly non-fungible tokens (NFTs), offer transformative solutions to these issues. This paper explores the application of NFTs and blockchain technology across various collectible asset classes, highlighting their potential to enhance transparency, security, and accessibility. The study explores the practical applications of NFTs, with a focus on their impact on physical collectibles, and examines the challenges and opportunities presented by Web3 integration. The paper concludes with a discussion on future research directions, emphasizing the need for comparative analyses and economic impact studies to fully understand the potential of Web3 in revolutionizing the collectibles market.

Keywords: Web3, Non-Fungible Tokens (NFTs), Collectibles, Provenance tracking blockchain, Asset authentication

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I. Introduction

The collectibles market, encompassing diverse assets such as fine art, rare books, sports memorabilia, and historical artifacts, has long attracted the interests of collectors, investors, and cultural institutions. These items hold not only financial value but also significant cultural and historical importance. However, traditional markets for these assets face persistent challenges, including the authentication of genuine items, secure and transparent provenance tracking, and limited liquidity.

The emergence of Web3 technologies, particularly Non-Fungible Tokens (NFTs), offers a groundbreaking solution to these issues.^{1,2} By leveraging blockchain's decentralized and immutable nature, Web3 has the

¹ Web3 is an evolving paradigm for the internet that emphasizes decentralization, user control, and direct peer-to-peer interactions through blockchain technologies and decentralized applications (dApps).

² NFTs are unique digital certificates verifying ownership and authenticity. Their immutable nature creates a transparent record, preventing counterfeits, and establishing clear provenance for collectibles and digital assets.

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potential to transform the collectibles market, enhancing transparency, security, and accessibility throughout the value chain (Krause, 2024). This paper investigates the application of Web3 technologies across various collectible asset classes, exploring how NFTs can address some of the major challenges faced by collectors, investors, and market intermediaries, and offering insights into the future of this evolving market.

2. Background

NFTs play a significant role in the Web3 ecosystem by enabling unique digital assets to be created, owned, and traded on decentralized platforms (Zarifis and Cheng, 2022). They leverage blockchain technology to provide verifiable ownership and provenance of digital items, making them central to various Web3 applications, including digital art, in-game items, music, virtual real estate, and more. NFTs exemplify Web3's principles of decentralization, user empowerment, and direct peer-to-peer transactions.

The U.S. Patent and Trademark Office and U.S. Copyright Office released a joint report in March 2024 titled, *Non-Fungible Tokens and Intellectual Property: A Report to Congress*. The report encompassed a comprehensive study on the current and future applications of NFTs, examined how intellectual property (IP) laws apply to NFTs and related assets, identified industry challenges that need to be addressed, and explored how NFTs can be utilized to secure and manage intellectual property rights. The report identified uses for NFTs including the following:

- **Collectibles and Memorabilia:** NFTs are used to create and trade physical and digital collectibles and memorabilia, such as sports cards and virtual game items, with unique attributes verified on the blockchain.
- **Tokenized Physical Assets:** NFTs can be used to represent ownership of physical assets, such as real estate or luxury goods, by providing a digital proof of authenticity and ownership.
- **Virtual Real Estate:** NFTs represent ownership of virtual land and properties in online metaverse environments, enabling users to buy, sell, and develop digital real estate.³
- **Digital Art Ownership:** NFTs provide a mechanism for owning and trading digital art, offering artists a way to sell their work directly and retain ownership rights through programmable royalties.
- **Gaming and In-Game Assets:** NFTs are integrated into video games to represent unique in-game items, characters, and assets that can be traded or used across different games.
- **Identity and Access Management:** NFTs can be employed for digital identity verification and access control, offering secure and verifiable credentials for various services and platforms.
- **Event Ticketing:** NFTs offer a secure and fraud-resistant method for issuing and managing event tickets, with features such as programmable terms and the potential for reselling.
- **Intellectual Property Rights Management:** NFTs enable creators to manage and enforce IP rights, including tracking and monetizing the use of their work through smart contracts.⁴
- **Charitable Donations and Fundraising:** NFTs can be utilized for fundraising by issuing unique digital items or experiences to support charitable causes, with proceeds directly benefiting the intended recipients.
- **Educational Certificates and Credentials:** NFTs can serve as verifiable digital certificates for educational achievements and professional qualifications, providing a permanent record of credentials.

The joint report highlighted that NFTs offer opportunities for improved IP protection and creator empowerment through blockchain and smart contracts; however, it also raised concerns about their effectiveness and potential for causing confusion. It concluded that existing laws are adequate for addressing IP issues related to NFTs and cautioned that specific legislation could stifle innovation, recommending public education and transparency to mitigate challenges in IP enforcement and recordkeeping.

³ The metaverse is a shared digital space where the physical and virtual worlds blend, combining elements of virtual reality, augmented reality, and the internet.

⁴ Smart contracts are self-executing computer programs that automatically verify and enforce the terms of an agreement.

Despite the numerous potential uses of NFTs, this paper focuses only on physical collectibles and memorabilia. This allows for a detailed exploration of how NFTs can address specific challenges such as authenticity verification, provenance tracking, and market liquidity. This targeted approach provides clearer insights into practical applications and benefits, such as enhanced recordkeeping and market access for tangible items. It also facilitates a deeper understanding of regulatory implications and consumer impact, including issues related to IP laws and potential market disruptions. By concentrating on this niche, the study can deliver actionable insights into how NFTs can transform the physical collectibles market, highlighting both opportunities and challenges.

The physical collectibles and memorabilia market is substantial and diverse, encompassing various asset classes. As of recent estimates:

- **Art and Fine Art:** The global art market was valued at approximately \$65 billion in 2023 (Art Basel and UBS, 2024).
- **Sports Cards:** The sports card market was estimated at around \$10 billion in 2023, with significant growth driven by both traditional and modern cards (Verified Market Reports, 2024).
- **Coins and Stamps:** The numismatic market, including coins and stamps, is valued at several billion dollars, with the global coin market alone estimated at around \$10 billion (Coin World, 2023; Scott Stamp & Coin, 2023).
- **Rare Books:** The rare books market is estimated to be worth between \$1 billion and \$2 billion (Rare Book Sale Monitor, 2023).

These figures demonstrate the substantial size and investment opportunities within the physical collectibles and memorabilia markets. In addition to these major collectible categories, the following items are also included in this asset category:

- **Trading Cards:** Pokémon cards, Magic: The Gathering cards, and other collectible card games.
- **Maps and Manuscripts:** Antique maps, historical documents, and handwritten manuscripts.
- **Historical Documents:** Original documents, letters, and artifacts from significant historical events.
- **Photos:** Historical photographs, celebrity photos, and vintage prints.
- **Historical Artifacts:** Items of historical significance, such as relics from historical events or figures.
- **Sports Memorabilia:** Jerseys, equipment, and items related to sports teams or athletes.
- **Autographs:** Signed documents, celebrity signatures, and historical figures' autographs.
- **Wine and Rare Spirits:** Highly sought-after, rare and aged beverages for connoisseurs and investors.
- **Toys, Dolls, and Games:** Vintage toys, dolls and action figures, and collectible board games.
- **Music Memorabilia:** Records, concert posters, and items associated with musicians and bands.
- **Film and Television Memorabilia:** Props, costumes, and scripts from movies and TV shows.

These markets, while not as financially significant as traditional collectibles, still constitute a substantial portion of the collectibles market. Their value is frequently influenced by factors like rarity, historical significance, and cultural appeal, making them attractive to both collectors and investors.

3. Literature Review

The intersection of Web3 technologies and the collectibles market, particularly in sports cards, has become a growing area of scholarly interest (Baker *et al.*, 2022; Alshater *et al.*, 2024; Krause, 2024). Research indicates that NFTs have the potential to enhance the authenticity, ownership verification, and trading of sports cards (Wilson *et al.*, 2022). NFTs can also play a crucial role in reducing the prevalence of counterfeit and altered sports cards in the market (Zaucha and Agur, 2024).

The application of Web3 technologies to sports cards has been extensively studied, yet research on their impact on other collectible assets remains scarce. Emerging studies are beginning to explore the role of blockchain technology in the art market, particularly in areas such as provenance tracking and fractional ownership. For example, the platform Masterworks facilitates fractional ownership of high-value physical artworks, enabling investors to diversify their portfolios with historically appreciating assets. However, Masterworks currently focuses exclusively on physical artworks and does not offer exposure to digital assets like NFTs.

Beyond the initial NFT hype of the early 2020s, blockchain technology is now being integrated into the physical art market.⁵ Platforms like Fairchain and Arcual are using blockchain to create tamper-proof records of artwork authenticity and ownership (Jebb, 2023). These records are enhanced with “digital dossiers” that include details about the work’s creation, the artist’s intent, and unique physical identifiers. Additionally, artists can set resale royalty terms within the blockchain, ensuring they receive a portion of any future sales. This approach provides greater transparency and fairness for artists, collectors, and dealers in the physical art market.

Blockchain technology is also proving valuable in preserving the histories and provenances of rare musical instruments and documents. For example, platforms like findmyinstrument.org utilize blockchain to store comprehensive details, including X-rays, photographs, and expert analyses. This digital record ensures the authenticity and integrity of these instruments, providing a transparent and unalterable history for collectors and researchers.

Nevertheless, comprehensive studies on the application of Web3 across a wider range of collectibles, such as rare books, fine art, stamps, and coins, are scarce. A notable gap in the existing research is the lack of comparative analysis examining how Web3 technologies can be adapted to address the unique challenges and opportunities presented by different collectible markets. Additionally, the economic implications of widespread Web3 adoption within the collectibles sector remain understudied.

4. NFTs: Tangible vs. Digital Assets

Non-fungible tokens have rapidly gained prominence as a unique asset class, reshaping traditional notions of ownership and value exchange. Despite sharing the common foundation of blockchain technology, the nature of the underlying asset—whether tangible or digital—plays a pivotal role in defining the characteristics, implications, and challenges associated with NFTs (He *et al.*, 2023).

Similarities Between Tangible and Digital Asset NFTs: Tangible and digital asset NFTs exhibit several key similarities. Both types of NFTs represent unique assets, setting them apart from fungible tokens like cryptocurrencies (Lai *et al.*, 2023). This uniqueness is fundamental to their value proposition. Additionally, both rely on blockchain technology for recording ownership, provenance, and transaction history, ensuring a high degree of transparency and immutability. Furthermore, NFTs, regardless of the underlying asset, serve as digital tokens that represent ownership rights. Both tangible and digital asset NFTs are commonly traded on online marketplaces, facilitating peer-to-peer transactions.

Collectable, a digital marketplace for rare collectibles, offers fractional ownership to broaden access to a wide range of collectible items, including sports memorabilia, art, vintage toys, and more. This platform allows individuals to invest in high-value collectibles without purchasing the entire item, making them more accessible to a wider audience. These offerings, which can be considered NFTs, must meet SEC compliance.

Differences Between Tangible and Digital Asset NFTs: While tangible and digital asset NFTs share certain similarities, they also exhibit key differences. The most significant distinction lies in the nature of the underlying assets they represent. Digital asset NFTs typically involve virtual items such as digital art, music, or in-game assets. In contrast, tangible asset NFTs are tied to physical objects.

Ownership rights also vary between these two types of NFTs. For example, owning an NFT linked to a physical artwork may grant the holder ownership of the token without necessarily transferring copyright. On

⁵ This period saw a rapid rise in NFT digital art popularity, fueled by high-profile sales, celebrity endorsements, and extensive media coverage, leading to a surge in market activity.

the other hand, an NFT for digital artwork might include intellectual property rights, depending on the terms set by the creator.

The factors that determine the value of tangible and digital asset NFTs also differ. Tangible asset NFTs derive their value from the intrinsic qualities of the physical object, such as its condition, rarity, and authenticity. Conversely, the value of digital asset NFTs is often influenced by the reputation of the artist or creator, community engagement, utility, and speculative demand.

The regulatory landscape for these two categories is another point of divergence. Tangible asset NFTs may fall under established property laws, while digital asset NFTs often exist in a regulatory gray area, posing unique legal challenges. Lastly, the maturity of the markets for these NFTs varies. The market for digital asset NFTs, particularly in digital art and collectibles, has seen rapid growth and volatility. In contrast, the market for tangible asset NFTs is still in its early stages, with ongoing development of infrastructure and regulatory frameworks.

5. Case Study: Arena Club's Transformation of the Sports Card Market

Arena Club, founded in 2021 and based in Los Angeles, is a digital platform revolutionizing the sports card collecting experience. The sports card market has long been plagued by issues such as counterfeit cards, inconsistent grading standards, and inefficient secondary markets. Recognizing these problems, Arena Club has strategically leveraged technology to create solutions that enhance transparency, security, and efficiency for collectors and investors (Krause, 2024).

Arena Club's innovative platform is built around an artificial intelligence (AI)-driven grading system that significantly improves upon traditional methods. Traditional grading is human-based and often suffers from subjectivity and inconsistency, leading to disputes and diminishing trust in the market. Arena Club's AI-based system addresses these issues by introducing objectivity, speed, and consistency into the valuation process, ensuring collectors receive precise and dependable assessments of their cards' conditions. This technological advancement has the potential to establish new industry standards, minimizing discrepancies and boosting confidence among collectors. Alongside Arena Club, new companies like Edge Grading are also incorporating AI to enhance accuracy, consistency, and efficiency in determining card condition and value, marking a technological transformation in sports card grading.

In addition to AI-driven grading, Arena Club has embraced Web3 technology as a means of further transforming the sports card market. By integrating blockchain and NFTs into its platform, Arena Club addresses critical issues like counterfeiting, ownership verification, and liquidity. The platform's Digital Proof of Claim (DPOC) system ensures that each transaction is secure and transparent, backed by immutable records on the blockchain.⁶ This system not only enhances trust within the marketplace but also streamlines the process of buying, selling, and trading sports cards.

Although not offered by Arena Club, another potential feature of a Web3 platform is the fractional ownership of assets through NFTs. This allows collectors to purchase shares in high-value collectibles, democratizing access to rare and valuable cards.⁷ Fractional ownership increases market liquidity by enabling a broader audience to participate in the market, which in turn stimulates growth and attracts new participants.⁸

Nevertheless, Arena Club's pioneering approach is not without its challenges. The platform operates within a complex regulatory environment, where issues related to consumer protection and intellectual property rights are important. Navigating these challenges requires a careful balance between innovation and compliance. As the industry evolves, this firm's ability to adapt to regulatory changes and address these concerns will be crucial in maintaining its leadership position in the Web3-enabled collectibles space.

⁶ Arena Club uses this term rather than NFT for marketing purposes.

⁷ The current record price for an individual sports card is the \$12.6 million paid for a 1952 Mickey Mantle baseball card (Topps; #311) on August 28, 2022.

⁸ Fractional ownership allows investors to purchase shares of high-value sports cards, democratizing access to this exclusive market through platforms like Collectable and Rally.

Arena Club's integration of AI-driven grading and Web3 technologies is fundamentally reshaping the sports card market. By addressing long-standing issues and introducing new opportunities for collectors and investors, Arena Club is poised to lead the industry into a new era. However, their continued success will depend on their ability to navigate the regulatory landscape and sustain the trust of their users.

6. Web3 and Other Collectibles: Rare Books, Maps, and Manuscripts

The markets for rare books, maps, and manuscripts hold immense historical and cultural value, yet they are fraught with challenges related to authenticity, provenance, and accessibility. Web3 technologies, particularly non-fungible tokens, offer transformative solutions to these longstanding issues.

One of the most significant advantages of Web3 in this domain is the ability to tokenize rare books, maps, and manuscripts, creating digital representations of these physical items. These digital twins can serve multiple purposes by providing a means of authentication, preserving the provenance of the item, and even enabling fractional ownership. For instance, an exceedingly rare first-edition book could be tokenized, allowing multiple investors to purchase and own shares of it.⁹ This approach democratizes access to high-value cultural artifacts, broadening the collector base and opening new avenues for investment.

NFTs also present a robust solution to the perennial problems of counterfeiting and forgery that have plagued these markets. By issuing a digital certificate of authenticity for each unique item, NFTs can link this immutable digital record directly to the physical artifact. This ensures that the provenance of rare books, maps, and manuscripts is precisely documented and verified, reducing the risk of fraud, and enhancing trust in the marketplace.

Additionally, the creation of digital archives and libraries through NFTs can preserve these valuable cultural assets for future generations. For example, digital copies of rare manuscripts can be stored on the blockchain, making them accessible to scholars, researchers, and collectors worldwide, while the original physical copies remain secure and intact. This not only safeguards cultural heritage but also enhances the study and appreciation of these artifacts by making them more widely available.

Despite the considerable promise of Web3 in transforming these markets, challenges remain. The physical nature of rare books, maps, and manuscripts requires high-resolution digital representations that faithfully capture their unique qualities. Additionally, the regulatory environment surrounding the tokenization and trading of such assets must be carefully navigated to ensure compliance with existing laws and standards. Educating collectors and investors about the benefits and potential of Web3 technologies will be essential for widespread adoption.

The integration of Web3 technologies into the markets for rare books, maps, and manuscripts offers a compelling opportunity to enhance transparency, security, and accessibility. By addressing challenges related to authenticity and provenance, and by enabling fractional ownership, Web3 can play a pivotal role in preserving cultural heritage while creating new and exciting investment opportunities. As these technologies continue to evolve, they hold the potential to revolutionize how we interact with and value these timeless treasures.

7. NFTs: Innovation, Challenges, and Regulatory Uncertainty

The discussion surrounding non-fungible tokens presents a complex and evolving landscape, with arguments both in favor of their transformative potential and highlighting their current limitations and challenges. NFTs are unique digital assets embedded with programmable logic, allowing them to serve functions beyond mere digital collectibles. They offer secure, verifiable ownership and are seen as revolutionizing property rights in the digital space. The potential applications of NFTs are vast, ranging from exclusive content access to representing real-world assets, which could significantly enhance control and value in various markets.

Proponents argue that the true power of NFTs lies in their underlying technology, which could eventually eclipse their association with collectibles (Peters and Cartwright, 2023; Pfeiffer *et al.*, 2022). This view suggests

⁹ The Codex Sassoon, an ancient Hebrew Bible, holds the record for the highest price paid for a book, selling for a staggering \$38.1 million in 2023.

that NFTs are a foundational technology with the capability to reshape multiple industries, offering new ways to manage, trade, and secure digital and physical assets.

Nonetheless, this optimistic perspective is tempered by concerns about the current limitations of NFT technology. Critics point out that the hype surrounding NFTs may be premature, as several significant challenges remain unresolved. For instance, the high energy consumption of blockchain networks that support NFTs raises environmental concerns (Lal and You, 2023; Ghosh *et al.*, 2024). This issue could become a substantial barrier to widespread adoption, particularly in an increasingly eco-conscious global market.

Additionally, the regulatory landscape for NFTs is still in flux, creating uncertainty that could stifle innovation and undermine investor confidence. The speculative nature of NFT markets and the frequent occurrence of scams further emphasize the need for a cautious approach (Huang *et al.*, 2023; Tan, 2024). As a result, while NFTs hold significant promise, their practical applications and overall utility are still under development and face considerable hurdles.

The relationship between NFTs and securities law adds another layer of complexity to their adoption. The U.S. Securities and Exchange Commission (SEC) has taken the position that certain NFTs may be classified as securities, depending on specific characteristics of the NFT offering (Munns, 2022; U.S. Securities and Exchange Commission, 2024).¹⁰ The SEC's determination typically hinges on three criteria (SEC v. W.J. Howey Co., 1946):

- Investment Contract: If an NFT is offered as an investment, with the expectation that profits will primarily come from the efforts of others, it may be classified as a security.
- Common Enterprise: If investors pool their funds and rely on the efforts of the NFT issuer for the venture's success, the NFT might be considered part of a common enterprise, which is another indicator of a security.
- Expectation of Profits: If investors primarily expect to profit from the appreciation of the NFT's value rather than its utility, it could meet the criteria for being considered a security.

A notable example is the SEC's case against Impact Theory using the Howey Test, where the SEC deemed the NFT offering an investment contract due to investors' expectations of profits from the company's future efforts (Woodard, 2023). This case illustrates how certain NFTs can be classified as securities, requiring them to be registered under U.S. law.

Nevertheless, it is crucial to recognize that not all NFTs fall under this classification. Many NFTs are simply digital collectibles without any investment component, and thus are not considered securities (Elzweig and Trautman, 2023). The regulatory landscape is still evolving, and the SEC's approach to NFTs is expected to continue developing as new cases and technologies emerge.

A significant ongoing legal dispute involves Dapper Labs' NBA Top Shot NFTs, which were the subject of a class-action lawsuit claiming they were unregistered securities (Rohrer *et al.*, 2024). Dapper Labs settled the lawsuit for \$4 million without admitting wrongdoing, and while the company maintains that these NFTs are not securities, the legal status remains unresolved. This case underscores the ongoing uncertainty and the need for clarity in how NFTs are regulated.

While NFTs offer exciting possibilities, they also present considerable risks, particularly in the context of regulatory uncertainty. The classification of NFTs as securities will depend on several factors, including the specific terms of their offering and investor expectations. As the legal landscape continues to evolve, it is essential for investors and issuers to proceed with caution, fully aware of the potential regulatory implications.

8. Conclusion

Web3 technologies, particularly NFTs, are poised to revolutionize the collectibles market by addressing longstanding issues related to authenticity, provenance, and liquidity. As demonstrated in this paper, the integration of blockchain technology into the collectibles market can significantly enhance transparency,

¹⁰ The Howey Test is a legal framework established by the U.S. Supreme Court to determine whether a transaction qualifies as an "investment contract" and therefore a security under the Securities Act, based on whether there is an investment of money in a common enterprise with an expectation of profits primarily from the efforts of others.

security, and efficiency across various asset classes, from fine art and rare books to sports memorabilia and historical artifacts.

However, the successful implementation of Web3 in the collectibles market requires overcoming several challenges, including regulatory hurdles, consumer adoption, and the development of robust infrastructure. The evolving legal landscape, particularly regarding intellectual property rights and consumer protection, will play a crucial role in shaping the future of Web3 in this industry.

Future research should focus on comparative analyses across different collectible markets to identify the unique challenges and opportunities presented by Web3 technologies in each. Additionally, more in-depth studies are needed to understand the economic implications of widespread Web3 adoption in the collectibles sector, including the impact on market dynamics, consumer behavior, and regulatory frameworks. As Web3 continues to evolve, ongoing research will be essential to fully realize its transformative potential in the collectibles market.

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Appendix

Case Study of a Sports Card NFT

Is an NFT of a 1986 Fleer Kareem Abdul-Jabbar #1 basketball card a security?

In September 2023, a 1986 Fleer basketball card of Kareem Abdul-Jabbar (#1) was submitted for grading and vaulting on Arena Club’s platform. The card received an 8.5 grade (see picture) and was vaulted in My Showroom.¹¹ The cost for grading and vaulting with Arena Club was \$10.

Legal ownership of the physical card remains with the individual, even though the card is securely stored within Arena Club’s vault.¹² At the time the card was vaulted, Arena Club minted an NFT on the Polygon blockchain as a digital representation of the physical card.¹³ To provide convenience for customers, the specific NFT that serve as a digital twin to the physical card, is stored in Arena Club’s wallet (which is referred to as a Digital Proof of Claim or DPOC - see details). Each card in the vault is tied to a unique DPOC on the Polygon blockchain which is viewable in each owner’s showroom. Arena Club terms state that the DPOC owner is effectively the owner of the card.

To determine if the NFT/DPOC representing the 1986 Fleer Kareem Abdul-Jabbar #1 basketball card falls under SEC security regulations, the Howey Test is applied, which evaluates four criteria: investment of money, common enterprise, expectation of profits, and efforts of others. The following is an analysis based on these criteria:



1. Investment of Money

- **Initial Investment:** The individual paid \$10 for grading and vaulting services provided by Arena Club. This fee is related to the service rather than the NFT itself.
- **Potential Profit:** The NFT is a digital representation of the physical card and since it cannot be purchased or traded separately, there is no expectation appreciation in value, and hence does not satisfy this prong.

2. Common Enterprise

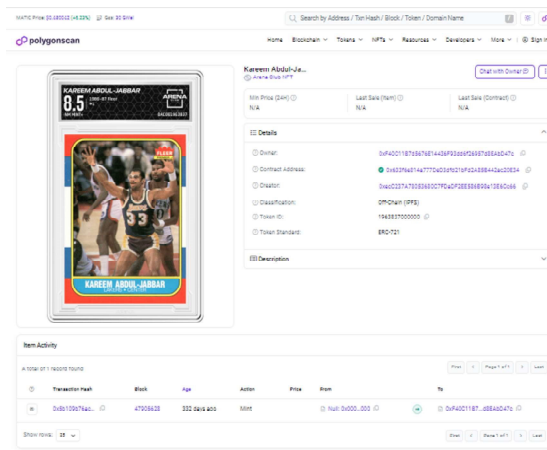
- **Current Situation:** The individual retains ownership of the physical card, which is stored in Arena Club’s vault. There is no pooling of funds or reliance on a promoter for the NFT’s value.
- **Limited Common Enterprise:** There is no evident pooling of resources or interlinkage of fortunes with others at this stage.

3. Expectation of Profits

- **If Held for Personal Enjoyment:** If the card and NFT are held solely for personal collection and enjoyment, without an explicit expectation of profit, this prong is less likely to be satisfied.
- **If Listed for Sale:** Should the card be listed for sale in Arena Club’s Marketplace, the expectation of profit becomes more explicit.¹⁴ The NFT’s value would be influenced by market demand and Arena Club’s efforts in managing the platform, thus aligning more closely with this criterion.

4. Efforts of Others

- **Current State:** There is minimal reliance on Arena Club’s efforts if the NFT is only used as a digital twin for personal collection.



¹¹ My Showroom is a digital platform for displaying and organizing trading card collections.
¹² An Arena Club vault is a secure storage facility for trading cards. It offers advanced security features like temperature control, surveillance, and insurance to protect valuable collections.
¹³ Polygon is a layer-2 blockchain network that aims to improve the scalability and efficiency of the Ethereum blockchain.
¹⁴ Marketplace is a digital platform for buying, selling, and trading cards.

Appendix (Cont.)

Case Study of a Sports Card NFT

- If Listed for Sale: If the card is offered publicly, the NFT's value may depend on Arena Club's platform and broader market dynamics, thus potentially satisfying this prong.

Conclusion: If the NFT and physical card are held solely for personal enjoyment, it is unlikely to be classified as a security. In this scenario, the individual retains ownership of the physical card, and there is no pooling of funds or reliance on others' efforts to determine the NFT's value.

Conversely, if the card is listed for sale in Arena Club's Marketplace, the expectation of profit becomes more explicit. In this case, the NFT could represent a shared investment opportunity, with its value influenced by market forces and Arena Club's efforts. However, if the physical card is removed from the vault and the NFT is subsequently burned, it becomes clear that the NFT has no separate value and the SEC should not be consider this to be a security.

Regulatory Considerations: There is clearly a need for modernization of the SEC's determination as to whether an NFT issued as a digital twin of a physical asset is a security. The NFT space is still evolving, and traditional regulatory frameworks like the Howey Test do not fully address the nuances of digital assets. While current interpretations might suggest the NFT could be considered a security, it is essential to recognize that this technology serves to enhance authentication, provenance, and secondary market activities, aligning with the SEC's broader mission.¹⁵ A more modern approach to securities regulation may be necessary to accurately assess such innovative assets that do not neatly fit into existing definitions.

¹⁵ The mission of the SEC is to protect investors, maintain fair, orderly, and efficient markets, and facilitate capital formation.

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