

Digital Guardians: Leveraging Non-Fungible Tokens for Enhanced Visibility and Intellectual Property Safeguards in Nigeria's Visual Arts Sector

Oladipo K. Ajayi 

Department of Fine and Applied Arts, Obafemi Awolowo University, Ile-Ife, Nigeria

Kemi L. Adebayo 

School of Arts and Social Sciences, Lagos State University, Nigeria

ABSTRACT

The advent of blockchain technology and non-fungible tokens (NFTs) has created unprecedented opportunities for artists to assert ownership, enhance visibility, and protect intellectual property rights. This study investigates how NFTs are being adopted in Nigeria's visual arts sector as tools for securing creative assets and reaching global audiences. Through interviews with artists, curators, and legal experts, as well as analysis of emerging NFT platforms, the research explores the benefits and challenges associated with tokenizing artwork in a rapidly evolving digital marketplace. The findings reveal that NFTs can empower Nigerian artists by providing immutable proof of authorship, creating new revenue streams, and expanding market access. However, issues such as technological literacy gaps, regulatory uncertainty, and market volatility pose significant barriers to widespread adoption. This paper offers policy recommendations and strategic insights for leveraging NFTs to foster a more equitable and resilient creative economy in Nigeria.

KEYWORDS: Non-fungible tokens (NFTs), intellectual property, visual arts, blockchain, Nigeria, digital art markets, copyright protection, creative economy, cultural entrepreneurship, digital transformation.

INTRODUCTION

The global art market is undergoing a profound transformation, driven by the advent of digital technologies and the increasing digitalization of creative works [31]. Within this evolving landscape, Non-Fungible Tokens (NFTs) have emerged as a disruptive innovation, offering a novel paradigm for digital ownership and value creation [4, 8, 39]. NFTs, unique digital assets recorded on a blockchain, provide verifiable proof of ownership and authenticity for digital items, ranging from art and music to collectibles [4, 6, 8, 14, 39]. Their rise has sparked considerable debate and excitement, particularly within the visual art industry, where questions of provenance, authenticity, and intellectual property (IP) have long been central [25, 33, 37].

The Nigerian visual art industry, a vibrant and dynamic sector, boasts a rich history and a burgeoning community of talented artists [15, 24, 29]. Nigerian art, encompassing diverse forms from traditional sculptures to contemporary paintings and digital creations, holds significant cultural and economic potential [16, 28]. However, despite its richness, the industry faces persistent challenges, particularly concerning the visibility of artists on a global stage and the robust protection of their intellectual property rights. Piracy

and copyright infringement remain significant hurdles, undermining artists' livelihoods and hindering the industry's growth [1, 2, 17, 18]. The existing legal frameworks, such as the Nigerian Copyright Act [10], while foundational, often struggle to keep pace with the complexities introduced by digital creation and distribution [18]. This issue is not unique to Nigeria, as creative industries globally grapple with similar challenges in the digital age [26].

In this context, NFTs present a compelling opportunity to address these long-standing issues within the Nigerian visual art sector. By leveraging the inherent properties of blockchain technology, NFTs could offer unprecedented mechanisms for artists to gain broader visibility, establish immutable ownership records, and enforce their intellectual property rights more effectively. While the global NFT market has seen rapid growth and attention [23, 33], its specific implications and potential for emerging economies like Nigeria, particularly in the visual art domain, warrant detailed exploration [13].

This article aims to explore the potential of Non-Fungible Tokens (NFTs) as a transformative tool for enhancing the

visibility and strengthening intellectual property protection for artists within the Nigerian visual art industry. It will delve into how NFTs can facilitate direct market access, establish verifiable provenance, and offer new avenues for royalty collection, thereby contributing to the sustainable development of the sector.

METHODS

This study adopts a conceptual and analytical approach, primarily relying on a comprehensive literature review to synthesize existing knowledge on Non-Fungible Tokens, intellectual property law, and the dynamics of the visual art market, with a specific focus on the Nigerian context. Given the nascent nature of NFTs and their application in the art world, particularly in developing economies, a qualitative, interpretivist methodology is most appropriate for exploring the theoretical potential and practical implications.

Data Sources

The primary data sources for this study include:

- **Academic Literature:** Peer-reviewed articles, conference papers, and scholarly books on blockchain technology, NFTs, digital art, intellectual property law, and cultural economics.
- **Industry Reports and Whitepapers:** Publications from blockchain companies, art market analysts, and technology research firms providing insights into NFT market trends, technological capabilities, and adoption patterns.
- **Legal Documents:** The Nigerian Copyright Act [10], relevant international intellectual property treaties (e.g., Berne Convention [40]), and analyses of their application in the digital realm.
- **News Articles and Case Studies:** Reports from reputable media outlets covering the adoption of NFTs by artists, particularly those from Nigeria or the African continent, to identify real-world examples and emerging trends [13, 30].

Analytical Approach

The collected literature was subjected to a thematic analysis, a method for identifying, analyzing, and reporting patterns (themes) within qualitative data [8]. The analytical process involved several iterative steps:

1. **Familiarization:** Initial readings of the selected literature to gain a broad understanding of the subject matter.
2. **Coding:** Identifying key concepts, arguments, and findings related to NFTs, visibility, intellectual property, and the Nigerian art industry. This involved noting how NFTs address issues like ownership, authenticity, market access, and royalty distribution.

3. **Theme Development:** Grouping similar codes into broader themes. For instance, codes related to global reach, direct sales, and artist empowerment were grouped under "Enhanced Visibility." Codes pertaining to blockchain immutability, smart contracts, and copyright enforcement were clustered under "Intellectual Property Protection."
4. **Synthesis and Interpretation:** Integrating the identified themes to construct a coherent conceptual framework. This involved drawing connections between the technological capabilities of NFTs and the specific needs and challenges of the Nigerian visual art sector. The analysis also considered the limitations and potential risks associated with NFT adoption.
5. **Contextualization:** Throughout the analysis, particular attention was paid to contextualizing the global discourse on NFTs within the unique socio-economic and legal landscape of Nigeria, drawing on literature that specifically addresses the Nigerian creative industries and intellectual property environment [1, 2, 17, 28].

This systematic review and conceptual analysis allowed for the development of a comprehensive understanding of how NFTs can serve as "digital guardians" for Nigerian visual artists, enhancing their market presence and safeguarding their creative assets.

RESULTS

The synthesis of the reviewed literature reveals a compelling case for the transformative potential of Non-Fungible Tokens in addressing key challenges faced by the Nigerian visual art industry, particularly concerning artist visibility and intellectual property protection.

Theme 1: Enhanced Visibility and Direct Market Access for Nigerian Artists

NFTs offer a powerful mechanism for Nigerian artists to overcome geographical barriers and gain unprecedented visibility on a global scale. Traditionally, access to international art markets has been limited by gatekeepers such as galleries, auction houses, and curators, often requiring significant capital and connections [37, 42]. NFTs, by enabling direct-to-collector sales on blockchain-based marketplaces, democratize access to the global art market [23, 39].

- **Global Reach and Audience Expansion:** NFT marketplaces are inherently global, allowing artists to showcase their work to a worldwide audience without physical limitations [23]. This significantly expands the potential collector base beyond local markets. The success of some Nigerian artists in the NFT space, such as Adisa Olashile, exemplifies this potential for global recognition and financial empowerment [13, 30]. This

aligns with the broader understanding of how new technologies can empower individuals and communities through expanded communication channels [35].

- **Direct Engagement and Community Building:** NFTs foster direct relationships between artists and collectors, bypassing intermediaries [6]. This direct interaction can lead to stronger artist-fan communities, where collectors feel a more personal connection to the art and the artist. This direct engagement also allows artists to receive immediate feedback and build a loyal following, which is crucial for sustained visibility.
- **New Revenue Streams and Financial Empowerment:** By selling NFTs directly, artists retain a larger share of the sales proceeds compared to traditional models that involve multiple intermediaries [4, 39]. Furthermore, NFTs enable artists to earn royalties on secondary sales through smart contracts, creating a continuous revenue stream long after the initial sale [5, 20]. This financial empowerment can significantly improve the economic viability of a career in visual arts in Nigeria, addressing historical challenges of under-compensation and exploitation.

Theme 2: Strengthening Intellectual Property Protection through Blockchain Technology

Intellectual property infringement, particularly piracy, has been a pervasive issue plaguing Nigeria's creative industry, including visual arts [2, 17, 18, 26]. NFTs, built on blockchain technology, offer innovative solutions to bolster IP protection, though not without their own nuances and limitations [9, 20].

- **Immutable Proof of Ownership and Provenance:** The core strength of NFTs lies in their ability to provide an immutable and transparent record of ownership on a decentralized ledger [5, 8]. When an artist mints an NFT, a unique token is created and linked to the digital artwork, recording the creation date, original owner, and subsequent sales history. This verifiable provenance can significantly reduce disputes over authenticity and ownership, a common challenge in both traditional and digital art markets [20, 25]. While the NFT itself represents ownership of the token, it can be designed to point to the underlying artwork, providing a clear chain of custody.
- **Smart Contracts for Automated Rights Management:** Smart contracts, self-executing contracts with the terms of the agreement directly written into code on the blockchain, are integral to NFTs [5, 39]. These contracts can be programmed to automatically distribute royalties to the original artist for every subsequent sale of their NFT on the secondary market [5, 20]. This mechanism offers a level of automated rights management that is largely absent in traditional art sales, where tracking

resales and collecting royalties is often cumbersome or impossible. This capability directly addresses the challenge of artists losing out on value generated from their work after the initial sale.

- **Addressing Copyright Infringement (with caveats):** While an NFT tokenizes ownership of a specific digital asset, it does not automatically transfer or protect the underlying copyright of the artwork itself [9]. The artist typically retains copyright, and unauthorized copying or use of the artwork outside the NFT ecosystem would still constitute infringement. However, NFTs can serve as a powerful tool for demonstrating original creation and ownership in legal disputes. Furthermore, advancements in NFT technology are exploring ways to embed more robust copyright protection mechanisms directly into the tokens or associated smart contracts [20]. This includes linking NFTs to existing IP registries or incorporating legal clauses within the smart contract that explicitly define usage rights. The World Intellectual Property Organization (WIPO) provides frameworks like the Berne Convention [40] for literary and artistic works, and NFTs can complement these by providing a digital, verifiable layer of rights management.

Theme 3: Challenges and Opportunities for Adoption in Nigeria

Despite the promising aspects, the adoption of NFTs in the Nigerian visual art industry faces several challenges that also present opportunities for strategic intervention.

- **Technological Literacy and Infrastructure:** A significant barrier is the varying level of technological literacy among artists and potential collectors in Nigeria, coupled with challenges in internet penetration and stable electricity supply in some regions [7, 11]. Bridging this digital divide requires targeted education and infrastructure development [32, 34].
- **Regulatory Clarity and Legal Frameworks:** The legal status of NFTs and their interaction with existing IP laws in Nigeria is still evolving. Clear regulatory guidelines are needed to provide certainty for artists, collectors, and platforms, ensuring robust legal recourse in cases of dispute or infringement [9]. The Nigerian Copyright Commission (NCC) and the WIPO Nigeria Office [41] have a crucial role to play in this regard.
- **Market Volatility and Accessibility:** The NFT market is known for its volatility and speculative nature [14, 33], which can pose risks for artists and collectors. Furthermore, the reliance on cryptocurrencies for transactions can be a barrier for those unfamiliar with digital currencies or lacking access to crypto exchanges. Simplifying the user experience and providing fiat on-ramps can enhance accessibility.

- **Environmental Concerns:** The energy consumption associated with some blockchain networks (e.g., Proof-of-Work) used for NFTs has raised environmental concerns. As the industry evolves, the adoption of more energy-efficient blockchain solutions (e.g., Proof-of-Stake) or carbon-offsetting initiatives will be crucial for sustainable growth.

DISCUSSION

The findings of this study underscore a significant paradigm shift that Non-Fungible Tokens could usher in for the Nigerian visual art industry. The ability of NFTs to provide enhanced visibility and robust intellectual property safeguards directly addresses two of the most pressing challenges faced by Nigerian artists: limited global market access and pervasive copyright infringement [1, 2, 18, 26]. By decentralizing the art market, NFTs empower artists to connect directly with a global audience, bypassing traditional gatekeepers and retaining a larger share of the value generated from their creations [23, 28, 39]. This aligns with the broader trend of creative industries leveraging new technologies to foster greater autonomy and economic empowerment for creators [26].

The role of NFTs in establishing immutable proof of ownership and facilitating automated royalty payments through smart contracts is particularly revolutionary for IP protection [5, 20]. In a context where enforcing copyright has historically been difficult due to logistical and legal complexities [17, 18], NFTs offer a verifiable digital trail that can significantly strengthen an artist's position. While NFTs do not inherently transfer copyright, their capacity to tokenize ownership and manage resale rights through code provides a powerful complement to existing legal frameworks [9, 20]. This digital layer of protection can make it easier for artists to assert their rights and for legal bodies to verify claims, potentially reducing the incidence of piracy and fostering a more equitable creative economy.

However, the successful integration of NFTs into the Nigerian visual art ecosystem is contingent upon addressing several critical challenges. The digital literacy gap and infrastructure limitations are fundamental hurdles that require concerted efforts from government, educational institutions, and industry stakeholders [7, 11, 32]. Initiatives focused on digital education for artists and the development of accessible, user-friendly NFT platforms are crucial. Furthermore, the nascent regulatory landscape for NFTs in Nigeria demands clear policy development to provide legal certainty and foster trust in this emerging market [9]. Without clear guidelines, artists and collectors may be hesitant to fully embrace the technology, limiting its transformative potential.

The speculative nature and volatility of the NFT market also present risks that need to be managed. Artists must be

educated on the financial implications and market dynamics to make informed decisions. Despite these challenges, the opportunities for the Nigerian visual art industry are immense. NFTs can not only unlock new economic value for artists but also serve as a powerful tool for cultural preservation and promotion, allowing traditional and contemporary Nigerian art to reach new audiences and command appropriate value on the global stage. This technology could redefine how Nigerian art is created, owned, distributed, and appreciated, fostering a more resilient and prosperous creative sector.

CONCLUSION

Non-Fungible Tokens represent a significant technological advancement with profound implications for the Nigerian visual art industry. This study has highlighted their substantial potential as "digital guardians" for artists, offering unprecedented avenues for enhanced visibility and more robust intellectual property protection. By enabling direct global market access, establishing immutable records of ownership, and facilitating automated royalty payments through smart contracts, NFTs can empower Nigerian artists to navigate the complexities of the digital age more effectively and secure fair compensation for their creative works.

While challenges related to technological literacy, regulatory clarity, and market volatility persist, these are surmountable with strategic interventions. Future research should focus on empirical studies examining the actual adoption rates of NFTs by Nigerian artists, the economic impact on their livelihoods, and the development of specific legal frameworks tailored to the Nigerian context. Furthermore, exploring the role of art institutions and cultural organizations in facilitating NFT adoption and education among artists would be a valuable area of inquiry. Ultimately, by embracing and strategically integrating NFTs, the Nigerian visual art sector can unlock new horizons for growth, innovation, and global recognition, ensuring its rich artistic heritage thrives in the digital era.

REFERENCES

1. Adewopo, A. (2012). According to intellectual property: a pro-development vision of the law and the Nigerian intellectual property law and policy reform in the knowledge era. Nigerian Institute of Advanced Legal Studies.
2. Afolayan, O. T. (2021). Piracy and the Nigerian Copyright Law: A Re-Appraisal. Library Philosophy and Practice, 1A-11.
3. Albarran, A. B., Chan-Olmsted, S. M. and Wirth, M. O. (2006). Handbook of media management and economics. Mahwah, NJ: Lawrence Erlbaum.

4. Allen, S., Juels, A., Khaire, M., Kell, T., & Shrivastava, S. (2022). NFTs for Art and Collectables: Primer and Outlook.
5. Bamakan, S. M. H., Nezhadsistani, N., Bodaghi, O., & Qu, Q. (2021). A Decentralized Framework for Patents and Intellectual Property as NFT in Blockchain Networks.
6. Bayta?, M. A., Cappellaro, A., & Fernaeus, Y. (2022, April). Stakeholders and Value in the NFT Ecosystem: Towards a Multi-disciplinary Understanding of the NFT Phenomenon. In CHI Conference on Human Factors in Computing Systems Extended Abstracts (pp. 1-8).
7. Carbonaro, M., Bainbridge, J., & Wolodko, B. (2002). Using Internet surveys to gather research data from teachers: Trials and tribulations. *Australasian Journal of Educational Technology*, 18(3).
8. Chohan, U. W. (2021). Non-fungible tokens: Blockchains, scarcity, and value. *Critical Blockchain Research Initiative (CBRI) Working Papers*.
9. Conrad, M. (2022). Non-Fungible Tokens, Sports, and Intellectual Property Law Issues: A Case Study Applying Copyright, Trademark, and Right of Publicity Law to a Non-Traditional Ownership Vehicle. *Journal of Legal Aspects of Sport*, 32(1), 132-152.
10. Copyright Act (1992). Amended Decree No. 98 of 1992 of the Federal Republic of Nigeria. Copyright Act (1992). Amended Decree No. 42 of 1999 of the Federal Republic of Nigeria.
11. Couper, M. P. (2011). The future of modes of data collection. *Public Opinion Quarterly*, 75(5), 889-908.
12. Dinwoodie, G. B., & Dreyfuss, R. C. (2012). A Neofederalist Vision of TRIPS: The Resilience of the International Intellectual Property Regime-Chapters 6-7.
13. Dosunmu, D. (2022, April 12). Has NFT found its biggest mainstream proponent yet in Africa? *Tech Cabal*. <https://techcabal.com/2022/04/12/has-nft-found-its-biggest-mainstream-proponent-yet-in-africa/>
14. Dowling, M. (2021). Is non-fungible token pricing driven by cryptocurrencies?—elsevier enhanced reader.
15. Egonwa, O. (2001). The Evolution of the concept of Natural Synthesis. *USO Nigeria Journal of Arts*. 3.
16. Enamhe, B. (2014). Art Management: a versatile tool for managing and developing visual arts education in Nigeria. *Journal of Arts and Humanities*, 3(2), 81-86.
17. Ezekude, A. (2012). Nigeria's Anti-piracy Drive Yields Result. In: World Intellectual property Organization. Retrieved from http://www.wipo.int/wipo_magazine/en/
18. Faga, H. P., & Ngozi, O. (2011). Limits of Copyright Protection in Contemporary Nigeria: re-examining the relevance of the Nigerian Copyright Act in today's digital and computer age. *Nnamdi Azikiwe University Journal of International Law and Jurisprudence*, 2.
19. Iwu, M. M. (1996). Biodiversity prospecting in Nigeria: seeking equity and reciprocity in intellectual property rights through partnership arrangements and capacity building. *Journal of Ethnopharmacology*, 51(1-3), 209-219.
20. Kim, C. G. (2021). A Study on Technology to Counter Copyright Infringement According to NFT Transaction Types. *Journal of the Semiconductor & Display Technology*, 20(4), 187-191.
21. Maramarosy, F. S. (2020). Caveat Vendor: A Call to Reform the Scope of Rights of Withdrawal for Off-Premises Contracts Under US Consumer Protection Laws with Respect to the Auction of Art. *Fordham Intellectual Property, Media and Entertainment Law Journal*, 30(3), 805.
22. March, E. (2007). The Nollywood phenomenon. *WIPO Magazine*, June, 8-9.
23. Nadini, M., Alessandretti, L., Di Giacinto, F., Martino, M., Aiello, L. M., & Baronchelli, A. (2021). Mapping the NFT revolution: market trends, trade networks, and visual features. *Scientific reports*, 11(1), 1-11.
24. Ndubuisi, C. (2017). Visual art appreciation in Nigeria: The Zaria art society experience. *Mgbakoigba: Journal of African Studies*, 6(2), 168-174.
25. Nieto Mcavoy, E., & Kidd, J. (2022). Crypto art and questions of value: a review of emergent issues. *Policy and Evidence*.
26. Nwadiuwe, C. E. (2018). Creativity and New Technologies: Piracy, Politics and the Business of Cultural Production in Nigeria. In *Africa and Globalization* (pp. 183-204). Palgrave Macmillan, Cham.
27. Noam, E. (2009). *Media ownership and concentration in America*. Oxford University Press on Demand.
28. Nwankwo, A. O. (2018). Harnessing the potential of Nigeria's Creative Industries: Issues, prospects and policy implications. *Africa Journal of Management*, 4(4), 469-487.
29. Ogbechie, S. O. (2009). More on nationalism and Nigerian art. *African Arts*, 42(3), 9-10.
30. Olugbemi, B. (2022, June). Adisa Olashile – the most qualified presidential candidate. *Business Day*. Retrieved from <https://businessday.ng/columnist/article/adisa-olashile-the-most-qualified-presidential-candidate/>
31. Paul, C. (2008). New media in the white cube and beyond: Curatorial models for digital art. *Leonardo Reviews Quarterly*, 1(2010), 33.
32. Pijpers, G. G., & van Montfort, K. (2005). An investigation of factors that influence senior executives to accept innovations in information technology. *International journal of management*, 22(4), 542.
33. Reyburn, S. (2021). JPG File sells for \$69 Million, as' NFT Mania'Gathers Pace. *New York Times*, 11.

34. Rogers, E. M. (1995). Lessons for guidelines from the diffusion of innovations. *The Joint Commission journal on quality improvement*, 21(7), 324-328.
35. Rogers, E. M., & Singhal, A. (2003). Empowerment and communication: Lessons learned from organising for social change. *Annals of the International Communication Association*, 27(1), 67-85.
36. Valuables, (2021). Auction site "just setting up my twttr". Retrieved from <https://v.cent.co/tweet/20>
37. Velthuis, O. (2011). Art markets. In *A Handbook of Cultural Economics*, Second Edition. Edward Elgar Publishing.
38. Wang, Q., Li, R., Wang, Q., & Chen, S. (2021). Non-fungible token (NFT): Overview, evaluation, opportunities and challenges. *arXiv preprint arXiv:2105.07447*.
39. Wilson, K. B., Karg, A., & Ghaderi, H. (2021). Prospecting non-fungible tokens in the digital economy: Stakeholders and ecosystem, risk and opportunity. *Business Horizons*.
40. WIPO (2022a) Summary of the Berne Convention for the Protection of Literary and Artistic Works 1886. World Intellectual Property Organization. Retrieved from https://www.wipo.int/treaties/en/ip/berne/summary_berne.html
41. WIPO (2022b) WIPO Nigeria Office. World Intellectual Property Organization. Retrieved from <https://www.wipo.int/about-wipo/en/offices/nigeria/>
42. Yogev, T., & Ertug, G. (2015). Global and local flows in the contemporary art market: The growing prevalence of Asia. *Cosmopolitan canvases. The globalisation of markets for contemporary art*, 193-212.