URL: www.lijdlr.com

# LAWFOYER INTERNATIONAL JOURNAL OF DOCTRINAL LEGAL RESEARCH

(ISSN: 2583-7753)

### Volume 2 | Issue 4

2025

© 2025 LawFoyer International Journal of Doctrinal Legal Research

Follow this and additional research works at: <a href="www.lijdlr.com">www.lijdlr.com</a> Under the Platform of LawFoyer – <a href="www.lawfoyer.in">www.lawfoyer.in</a>

After careful consideration, the editorial board of LawFoyer International Journal of Doctrinal LegalResearch has decided to publish this submission as part of the publication.

In case of any suggestions or complaints, kindly contact info.lijdlr@gmail.com

To submit your Manuscript for Publication in the LawFoyer International Journal of DoctrinalLegal Research, To submit your Manuscript Click here

### INTERPRETATION OF NON-FUNGIBLE TOKENS (NFTS) AND BLOCKCHAIN TECHNOLOGY IN INDIA

#### Nandini Achhra<sup>1</sup>

### I. ABSTRACT

The rise of non-fungible tokens (hereinafter referred to as "NFTs") has changed the way digital properties operate and as such presents new possibilities for, in this instance intellectual property rights notably copyrights. This paper interrogates how the emergence of NFTs and blockchain technology are challenging, reconstituting conventional copyright law regimes NFTs - unique digital assets with proof of ownership verified through blockchain technology - have swept across an array of industries from art and music to entertainment, providing a new way for creators to both authenticate their work and monetize it online. However, the intersection of NFTs and copyrights raises complexities regarding ownership, infringement, and the scope of rights pertaining to NFT transactions. The paper assesses the current legal framework, scrutinizing how existing copyright laws pertain to NFTs, while also examining notable court cases and legal precedents. Additionally, it examines the implications of smart contracts, which are frequently employed in transactions to automate and enforce the terms of agreements, and their potential impact on copyright enforcement and licensing. The paper also examines the global aspect of copyright and NFTS, analyzing how various countries are adapting to these technological innovations. It emphasizes the difficulties of aligning copyright laws across different countries in the digital era and the potential for international treaties and agreements to contribute to the development of a unified legal framework for NFTS. Finally, the paper suggests possible changes and future paths for copyright law in response to the continuous development of non-fungible tokens and blockchain technology. The paper concludes that while NFTs present exciting prospects

© 2025. LawFoyer International Journal of Doctrinal Legal Research

(ISSN: 2583-7753)

<sup>&</sup>lt;sup>1</sup> 3rd year - BALLB(H), Student at Vivekananda institute of professional studies, Delhi

for monetizing and distributing digital content, a comprehensive and well-defined legal framework is essential to tackle the intricate copyright challenges they entail and safeguard intellectual property rights in the digital age.

### II. INTRODUCTION

In today's digital age, blockchain technology and NFTs are reshaping the way we understand digital ownership and creativity. An NFT is a unique digital asset that signifies ownership or proof of authenticity of a single object or piece of material, such as *works*.<sup>2</sup> Of art, music, movies, virtual real estate, or other digital works, and is based on blockchain technology.<sup>3</sup>

Blockchain technology is a decentralized system that records transactions across multiple computers, ensuring security and transparency. It operates without a central authority, using a network of nodes to verify transactions through a consensus mechanism. Each block contains a list of transactions, and once completed, it links to the previous block, forming a secure, tamper-resistant chain. When someone owns an NFT, they hold the exclusive token on the blockchain, making it unique.

Each NFT holds its own value and identity, secured by algorithms and metadata. NFTs are created through "tokenization," where creators can offer buyers proof of ownership verified by blockchain, bypassing any traditional intermediaries. These tokens are often sold like tangible goods because they can't be altered or duplicated, and only one person can own a specific NFT at any given time.

For instance, money is fungible – 20/- can be exchanged for two 10/- notes or another 20/-, but NFTs don't work this way. Unlike cryptocurrencies like Bitcoin or Ethereum, which are fungible and interchangeable, each NFT remains distinct and non-exchangeable.

<sup>&</sup>lt;sup>2</sup> Copyright Act, 1957, No. 14 of 1957, § 2(y) (India).

<sup>&</sup>lt;sup>3</sup> Gautam KM, NFTs And Copyrights, Registration of a Memorandum of Mortgage by Deposi (Mar. 8, 2023), https://www.mondaq.com/india/copyright/1211232/nfts-and-copyrights.

By merging art, technology, and finance, NFTs have introduced a new concept of value, revolutionizing digital art and assets. However, as NFTs grow in popularity, they raise important copyright concerns. Purchasing an NFT doesn't always grant ownership of the underlying intellectual property, leading to questions about the rights of creators, buyers, and the platforms facilitating these transactions. This paper explores the copyright implications of NFTs, examining the legal and ethical challenges in the evolving landscape of digital ownership.

### III. LEGAL VALIDITY OF NFTs IN INDIA

India has yet to implement clear rules governing NFTs. The regulatory framework for NFTs still remains a grey area, as these digital assets are often considered within the broader context of blockchain and cryptocurrency regulations. NFTs, like cryptocurrencies, operate on blockchain technology, which introduces unique challenges concerning security, fraud, intellectual property rights, and taxation. Because of these shared underlying technologies, understanding the legal stance on cryptocurrencies is essential to comprehending NFTs' legal status in India.

In recent years, India has taken cautious steps to address cryptocurrency regulation. Notably, the Reserve Bank of India (RBI) initially banned banks from facilitating cryptocurrency transactions. This approach raised significant concerns regarding digital assets' future in India, influencing not only cryptocurrencies but also related blockchain applications, including NFTs, in the case of "Internet And Mobile Association Of India V. Reserve Bank Of India", the Supreme Court of India highlighted the need for a balanced regulatory approach towards virtual currencies and, by extension, NFTs in India. While the RBI has the authority to regulate these digital assets, any restrictions must be reasonable and proportionate.

As India continues to develop its legal framework for digital assets, the principles of proportionality and reasonableness will play a crucial role in shaping future regulations.

\_

<sup>&</sup>lt;sup>4</sup> Internet And Mobile Association Of India V. Reserve Bank Of India, AIR 2021 SC 2720.

However, the decision did not address the legality of cryptocurrencies, nor did it result in the introduction of new legislation controlling them.

## IV. PRACTICAL IMPLICATIONS FOR CREATORS AND BUYERS IN THE NFT ECOSYSTEM WITH REGARD TO COPYRIGHTS IN INDIA

The rise of NFTs has transformed how digital content is created, shared, and monetized, offering new opportunities and challenges.

### A. Implications For NFT Creators in The Indian Legal Context

- **Determining Authorship:** Under Indian copyright law<sup>5</sup>, a creator of an NFT may be regarded as an "author." Section 2(d) of the Copyright Act<sup>6</sup>, defines an "author" in the context of copyright for works generated by a computer or algorithm. It states that the person or entity responsible for initiating or overseeing the creation process is considered the author for copyright purposes. This helps clarify authorship in cases where traditional concepts don't apply, such as computer-generated works and grants them copyright protection. In the case of NFTs, the original creator of the work is the "author" and retains copyright, while the NFT purchaser is simply the owner of the asset unless specific rights are assigned by the author.
- **Determining Ownership:** Section 14 of the Act deals with copyright ownership in literary, dramatic, musical, and artistic works, making the author the first owner of the copyright, unless there is a contractual agreement indicating otherwise. NFTs, when uploaded to a blockchain, gain a unique identification code, serving as proof of ownership. The creator of an NFT holds ownership of the NFT.

<sup>&</sup>lt;sup>5</sup> Copyright Act, 1957, No. 14 of 1957, (India).

<sup>&</sup>lt;sup>6</sup> Copyright Act, 1957, No. 14 of 1957, § 2(d) (India).

- Implications for Originality of NFTs under Indian Copyrights Law: Under Section 13 of the Act<sup>7</sup>, copyright protection is granted to "original" literary, dramatic, musical, and artistic works. For a work to be classified as 'original', it should involve some level of creativity or intellectual effort by the creator. An NFT does not qualify as an original work but rather represents a unique identifier of the associated content.
- Opportunities to the Creator for Direct Monetization and Royalty Generation:
  In the traditional market scenario, creators rely on intermediaries like galleries, publishers, or streaming platforms, which may limit their earnings and control over their work. With no intermediaries taking a percentage of the sale, creators have a greater say in pricing, distribution, and terms of sale as they can directly interact with the buyers. Additionally, NFT markets are globally accessible offering a diverse range of buyers to the creator. Creators can also include a smart contract specifying a royalty percentage, often 5-10%. Every time an NFT is resold, this percentage of the sale directly goes to the creator, ensuring sustained revenue.

### B. Implications For a Person Purchasing An NFT

Purchasing an NFT does not transfer copyright ownership of the underlying content. The original creator retains the copyright unless they explicitly transfer it to the buyer. The creator remains the copyright holder, even if the NFT changes hands multiple times. Copyright holders of an NFT can assign or license their rights, including the right to mint NFTs, through agreements. Minting an NFT without these rights is a copyright violation.

<sup>&</sup>lt;sup>7</sup> Copyright Act, 1957, No. 14 of 1957, § 13 (India).

### C. Distinguishing Between Copyright and Ownership in NFT Transactions

Owning an NFT does not provide copyright protection, as NFTs represent individual works on the blockchain but are not classified as original or derivative works under intellectual property law. While the underlying work tied to an NFT may be protected by copyright if it is sufficiently established that it contains some creative efforts made by the creator.

Therefore, minting an NFT without permission from the original creator can lead to copyright infringement. Therefore, the person minting an NFT must have the proper rights to do so, either by being the original creator or having obtained the necessary rights.

### D. Issues Arising from NFTS Pertaining to Copyrights

Given their digital format, NFTs can be easily replicated by individuals with malicious intent, enabling them to exploit someone else's work without authorization.

Buyers of NFTs lack the ability to file a copyright infringement lawsuit, as they own only the NFT and not the corresponding digital content.

While NFT owners can view or listen to the digital asset, they are forbidden from copying, distributing, or publicly displaying it. The NFT serves as a digital representation of the original asset rather than the asset itself.

NFT transactions operate largely without regulation, both at national and international levels. The absence of regulatory frameworks in the global NFT market increases the risk of intellectual property violations. With no specific regulations in place for NFTs, owners must rely on existing copyright laws to seek remedies, often in the form of temporary injunctions or damage claims. The inherently anonymous nature of minting NFTs, due to blockchain technology, complicates legal enforcement. This anonymity poses

challenges for pursuing legal action, even though copyright laws offer certain protections.

### V. COPYRIGHTS INFRINGEMENT IN NFTs

NFT copyright infringement happens when someone illegally takes creative content, like art, music, or films, and tokenizes it into NFTs without permission from the original creator. They then sell it on an NFT marketplace, misleading buyers into purchasing unauthorized copies of someone else's work. It may typically occur in the following scenarios:

- Content Theft: An unauthorized person acquires creative content illegally, which might include artwork, music, films, or any other digital production, without first receiving permission from the original creator or copyright owner.
- **Tokenization:** The unauthorized person uses blockchain technology to tokenize the stolen content and create a unique NFT. During this procedure, the digital asset is converted into a non-fungible token, therefore proving its ownership and legitimacy on the blockchain.
- Listing On NFT Marketplace: As a result, the unlicensed NFT is advertised for sale on an NFT marketplace or platform. Here, unsuspecting buyers could be tricked into thinking they are getting a legitimate digital asset when, in fact, they are getting an illegal copy of someone else's creation.

Committing such an act violates the creator's copyright, as it infringes on their exclusive rights to reproduce, distribute, and display the work, potentially causing financial and reputational damage. To counter this, NFT platforms are adopting stricter verification processes, including digital signatures and ownership history tracking. Legal frameworks and industry standards are also evolving to address the complexities of NFTs and copyright violations.

### VI. ROLE OF SMART CONTRACTS IN SECURING AND ENFORCING RIGHTS OF THE PARTIES

Smart contracts are automated agreements with terms encoded directly into code. These contracts are crucial in the creation, sale, and ownership of NFTs.8When an NFT is created or "minted," a smart contract is deployed on the blockchain. This contract contains all the details of NFT, including its unique features, the identity of the creator, and the metadata associated with the digital asset. The smart contract guarantees the uniqueness of the NFT, preventing anyone from replicating it. Every time an NFT is sold or transferred, the smart contract refreshes the ownership details on the blockchain, which ensures that the information of the new owner is accurately documented, creating a clear record of ownership.

Smart contracts can define and regulate the usage terms for a digital asset which are automatically enforced by the blockchain. For instance, a smart contract might grant the NFT holder particular rights, such as displaying the artwork in virtual galleries or utilizing it in digital projects. Smart contracts can also facilitate auctions or conditional sales. For instance, an NFT could be programmed to sell to the highest bidder after a predetermined time or upon meeting certain conditions. Creators can also establish smart contracts for receiving royalties.

### A. Indian Legal Framework for the *Transfer of Rights* Pertaining to NFTs

In India, we use the modes of copyright licensing or assignment to transfer certain rights over such copyrighted work. According to *Section 19(1) of the Copyright Act*<sup>9</sup>, a copyright assignment is effective only when it is documented in writing and signed by the copyright holder or their authorized agent. This requirement complicates the

<sup>&</sup>lt;sup>8</sup>What Are Smart Contracts?, Spiceworks (last visited Nov. 12, 2024), https://www.spiceworks.com/tech/innovation/articles/what-are-smart-contracts/.

<sup>&</sup>lt;sup>9</sup> Copyright Act, 1957, No. 14 of 1957, § 19(1) (India).

copyright transfer process for NFTs via smart contracts, as these contracts alone do not meet the legal provisions.

In India the owner shall create a licensing agreement that grants the buyer specific rights to utilize the NFT, which may encompass displaying the artwork, incorporating it into digital projects, or other mutually agreed purposes. While this agreement does not transfer copyright ownership, it allows the buyer to use the work in designated ways. Conversely, executing a formal copyright assignment agreement transfers all copyrights to the buyer, effectively giving them all original rights held by the creator, such as reproduction, distribution, and public display rights, subject to any stipulations outlined in the agreement. Such agreement must be a written document signed by the copyright owner or their authorized representative.

This legal framework is essential for legitimizing the transfer and preventing potential disputes regarding ownership and usage rights of the copyrighted material in India, thereby offering clarity and security for both the seller and buyer.

## VII. COMPARISION OF COPYRIGHTS LEGAL FRAMEWORK IN OTHER JURISDICTIONS WITH REGARDS TO NFTs AND BLOCKCHAIN TECHNOLOGY

The swift emergence of NFTs and blockchain technology has prompted diverse legal reactions worldwide. The way each nation addresses copyright challenges within this digital realm showcases its distinct legal customs, regulatory focuses, and readiness for technological advancements.

### A. United States of America

The *U.S. Copyright Act of 1976* gives authors, the right to reproduce, distribute, and publicly display them, etc. These principles still hold true for NFTs; unless a creator transfers ownership through a legal agreement, they continue to hold copyright over the digital work that they created originally. The doctrine of fair use under the U.S. copyright

law permits the usage of copyrighted material without permission under specific situations.

In the United States, NFT platforms are mandated by the *Digital Millennium Copyright Act* (*DMCA*). An application of DMCA allows copyright owners to submit notifications that would remove content infringing their rights on host platforms and the NFT marketplace.<sup>10</sup> Unlike the U.S. Copyright Act, which explicitly addresses digital works, fair use, and DMCA provisions for online platforms, India's Copyright Act, of 1947 lacks express guidelines pertaining to NFTs and does not have a similar mechanism like the DMCA for copyright owners to remove infringing content from the NFT marketplaces.

### B. United Kingdom

The United Kingdom regulates NFTs primarily under the *Copyright, Designs, and Patents Act of 1988*, safeguarding creators' rights unless they choose to transfer or license them. While specific NFT laws are still in development, the *UK Intellectual Property Office (UKIPO)* has clarified that copyright remains with creators when they tokenize their work. Thus, minting an NFT does not transfer copyright unless a separate agreement is made, allowing creators to retain control over their digital assets. To manage copyright challenges with NFTs, UK platforms are implementing verification processes to confirm artists' identities and the authenticity of their works. Platforms often adhere to the *Digital Millennium Copyright Act (DMCA)*, allowing creators to report infringements and request content removal. The UK promotes blockchain technology to trace ownership, aiding copyright enforcement and dispute resolution. Educational efforts by the *UKIPO* also aim to raise awareness of IP related to NFTs.<sup>11</sup>

Non-Fungible Tokens and Intellectual Property: A Report to Congress, U.S. Copyright Office (Mar. 9, 2024), https://www.copyright.gov/policy/nft-study/Joint-USPTO-USCO-Report-on-NFTs-and-Intellectual-Property.pdf.
 Sapna Goundan, Who Owns The Copyright In NFTs?, Sprintlaw (Nov. 2, 2022), https://sprintlaw.com.au/blog/who-owns-the-copyright-in-nfts/.

Unlike the UK, where the UKIPO clarifies that minting an NFT does not transfer copyright, in India, the Copyright Act, of 1957, does not explicitly mention NFTs or digital assets, leaving ambiguity around their copyright ownership and transfer.

Indian platforms do not have specific legal mandates for such practices and, the processes for reporting and handling copyright infringements pertaining to NFTs remain underdeveloped. India's legal framework also lacks a dedicated push for blockchain technology in copyright enforcement, as seen in the UK's efforts to trace ownership and aid dispute resolution.

### C. Australia

Although specific NFT regulations are lacking, the *Copyright Act of 1968* still protects creators' rights. Copyright in Australia is automatically granted to creators of original works, allowing exclusive control over reproduction, distribution, and public display unless these rights are transferred via a legal agreement similar to that of the Indian legal framework on this subject. Challenges arise in verifying the originality and ownership of NFT-linked content. While Australian law allows the original creator of copyrighted works to seek legal recourse through the *Australian Copyright Council* in case of an unauthorized NFT creation, Indian law lacks express provisions for addressing NFT-related copyright infringement and does not provide clear mechanisms for creators to protect their digital works in the NFT space.

### D. Japan

Japan's Copyright Act remains the primary law safeguarding creators' rights, now adapted to cover digital content. This law states that unauthorized use, like minting NFTs without the creator's permission, constitutes copyright infringement. Japan's Financial Services Agency (FSA) actively supports blockchain's growth while maintaining oversight to protect consumers and inventors. NFT platforms in Japan have adopted strict verification protocols to ensure that digital assets remain authentic. Creators must demonstrate ownership or secure authorization to mint and sell NFTs, using tools like

digital watermarks, metadata tags, and blockchain tracking to prevent counterfeit assets. Trade organizations, such as the *Japan Digital Content Association*, contribute by guiding NFT market standards. They emphasize the importance of copyright adherence, promoting transparency for creators and platforms alike.

Compared to Japan's Copyright Act, which has been specifically adapted to address digital content, India's Copyright Act, of 1957, does not yet have clear provisions regarding NFTs or digital assets linked to blockchain technology. Indian law does not mandate tools like digital watermarks or blockchain tracking to prevent counterfeit assets, nor does it provide specific guidance on how creators can secure authorization for minting and selling NFTs. Additionally, there is no equivalent regulatory body in India compared to Japan's FSA in overseeing NFT platforms. Although India has intellectual property protection in place, it has yet to introduce measures to regulate the NFT ecosystem or ensure greater transparency and consumer protection in this space.

### VIII. LOOPHOLES IN THE INDIAN LAW

As India stepped in and learned different technologies like NFTs and blockchain, some legal implications and some sort of loophole arose. Such limitations may influence the possibility of proper legislation in the sphere of intellectual property as well as the protection of related rights, specifically in the digital environment.

- Lack of Specific Legislation for NFTs: India currently lacks independent legislation specifically regulating NFTs. While the Indian legal system recognizes two primary forms of intellectual property, it does not address NFTs, leading to unclear legal regimes for NFT-related disputes. This ambiguity makes it difficult for creators and investors to protect their rights and seek compensation for infringement or fraud.
- Ambiguity in Copyright Enforcement: Copyright protection in India is governed by the Copyright Act of 1957, which focuses on literary, musical, and artistic works. However, this framework does not account for the ownership and

distribution of content on blockchain technology, complicating copyright enforcement in the NFT space. For example, while *Section 7*<sup>12</sup> Grants authors exclusive rights, the decentralized nature of blockchain creates loopholes that hinder the establishment of proof for infringement and the pursuit of remedies.

- Inadequate Framework for Digital Asset Regulation: India's legal framework for digital assets remains limited. Although the RBI and SEBI have issued guidelines, there is no comprehensive law covering NFTs. This regulatory gap leaves issues such as anti-money laundering (AML) and know-your-customer (KYC) requirements unaddressed, making platforms vulnerable to fraud and financial misconduct.
- Challenges in Blockchain-Based Dispute Resolution: Dispute resolution in the
  context of blockchain is challenging due to its decentralized and secure nature.
  Indian courts are still adapting to these technological advancements, leading to
  inefficiencies and delays in resolving disputes involving virtual properties.
- Inconsistencies in Enforcement Across Jurisdictions: Intellectual property
  enforcement varies across jurisdictions in India, with differing regulations for
  blockchain matters. This inconsistency creates confusion for creators, buyers,
  and platforms, as they may be subject to different legislative frameworks based
  on the dispute's location.
- Limited Awareness and Expertise: There is a notable lack of understanding and
  expertise regarding blockchain technology and NFTs within the Indian legal
  system. Many legal professionals and judges are still familiarizing themselves
  with these emerging technologies, hindering the effective handling of NFTrelated disputes and the establishment of appropriate legal norms.

### IX. CONCLUSION AND RECOMMENDATIONS

The relationship between copyrights, NFTs, and blockchain technology is complex and continually evolving, blending legal, technological, and artistic aspects. NFTs, as unique

© 2025. LawFoyer International Journal of Doctrinal Legal Research

(ISSN: 2583-7753)

<sup>&</sup>lt;sup>12</sup> Copyright Act, 1957, No. 14 of 1957, § 7 (India).

digital assets verified by blockchain, revolutionize how digital content is created, owned, and shared.

The growing prevalence of NFTs highlights the need for a comprehensive legal and regulatory framework to address their unique challenges. The development of specific legislation for NFTs, focusing on aspects such as ownership, transfer, and intellectual property rights (IPRs), is essential. Such laws would mitigate risks for creators, investors, and platforms while clarifying ownership, enforceability of smart contracts, and copyright infringement processes. Aligning these provisions with international frameworks will facilitate better cross-border enforcement and mutual understanding.

The *Copyright Act, of 1957*, of India should be amended to expressly define NFTs and state the legal implications of minting, buying, and selling NFTs. The definition of "artistic" and "literary" works under *Section 2(c) of the Act* should also be expanded to explicitly include digital creations associated with NFTs. This would give creators of digital art, music, videos, and other content linked to NFTs, the same legal recognition and protection as that of the creators of physical or traditional works. It would also provide clarity in defining these works within the context of NFT transactions, reducing ambiguity for creators, buyers, and platforms.

To ensure that such digital works are adequately protected under Indian laws, it is necessary to amend *Section 13 of the Copyright Act, 1957*, to include specified guidelines addressing such digital content. This shall not only cover traditional creative works but also those created entirely through computer-generated processes or artificial intelligence. This would help in establishing the originality of such works, ensuring that they are treated equally under the law as traditional literary, dramatic, musical, or artistic works.

Furthermore, the ownership of an NFT should not imply copyright ownership unless explicitly stated in a smart contract or any agreement to that effect. NFT sales contracts should mandatorily disclose whether the copyright is intended to be transferred, licensed, or retained by the creator. A statutory framework to this effect shall be

introduced to govern the assignment and licensing of copyrights pertaining to NFTs, recognizing blockchain-based agreements as legally valid and enforceable under the Indian copyright law.

Additionally, Smart contracts should be legally recognized as enforceable under the Indian legal framework on contracts, akin to e-contracts as per the *Information Technology Act*, 2000 and the *Indian Contract Act*, 1872. The Copyright Act shall be so amended to mandate a minimum royalty percentage for creators on secondary sales of NFTs, which may be around 5-10%, thereby ensuring a sustained income. NFT platforms that are operating in India should be required to transparently display the royalty terms during the transactions, which promotes accountability and fairness.

Moreover, to address the regulatory loopholes related to NFTs, India shall implement a framework focusing on Anti-Money Laundering (AML) and Know Your Customer (KYC) requirements for NFT platforms. This would ensure compliance to prevent fraud and any financial disputes.

As NFTs are still emerging, setting standards for enforcing intellectual property rights in various jurisdictions is crucial and this could be achieved by establishing an authoritative body for such digital currency and blockchain technology which will prove to be helpful in overseeing adherence to regulations in a more effective manner. Educating and raising awareness about blockchain technology and NFTs is essential to equip the legal community, regulators, and judiciary with the knowledge needed to address emerging challenges.

To protect the buyers, NFT marketplaces must ensure a clear *chain of title* for associated content, informing buyers of the rights that they are acquiring. Additional warranties shall also be included in the NFT transactions, guaranteeing that the associated work does not infringe any third-party rights. Furthermore, the Copyright Act of India should be amended to penalize any such unauthorized actions, along with a legal framework for refund and grievance redressal to address fraud or misrepresentation in NFT transactions. Additionally, liabilities for NFT platforms facilitating the sale of infringing

NFTs shall also be incorporated into the Act. This approach will help build trust among the creators and protect the integrity of such marketplaces where these digital assets are traded.

The Indian intellectual property rights laws must align with global developments in NFTs so as to ensure interoperability and the enforceability of the rights of the related parties across jurisdictions. A collaboration with international copyright organizations, such as the World Intellectual Property Organization (WIPO), shall aim to create standardized protocols for the protection of any such NFT-associated work.

In conclusion, the emergence of NFTs and blockchain technology presents a complex challenge for existing legal frameworks, requiring a focused approach to ensure the protection of intellectual property and the fair functioning of digital markets. Indian laws on this subject matter must evolve to keep pace with global legal standards, aligning with international practices to ensure effective enforcement and cross-border cooperation. By addressing these challenges, India can soon create a legal environment and framework that fosters innovations while safeguarding the rights of creators, buyers, and other stakeholders in the digital space.

### X. REFERENCES

### A. Statutes, Cases Cited

- Copyright Act, 1957, No. 14 of 1957, (India).
- Copyright Act of 1976, 17 U.S.C. §§ 101–810 (2018) (U.S.).
- Copyright, Designs and Patents Act 1988, c. 48 (U.K.).
- Copyright Act of Japan, Act No. 48 of 1970, as amended (Japan).
- Copyright Act 1968 (Cth) (Austl.).
- Internet And Mobile Association Of India V. Reserve Bank Of India, AIR 2021 SC 2720.

### B. Books, Articles, Journals

- Ananth Padmanabhan, Intellectual Property Rights: Infringement and Remedies (LexisNexis 2012).
- Ankush Bhatia, NFTs and Intellectual Property Rights in India (Delhi Law Publications 2022).
- Brad Sherman & Leanne Wiseman, Copyright Law in Australia 112-15 (2d ed. 2017).
- Graham Greenleaf, Copyright Law in Australia (1st ed. 2020).
- Jane C. Ginsburg, European Copyright Law (Jonathan Griffiths ed., Edward Elgar Publishing 2021).
- Jeremy Phillips & Alison Firth, Introduction to Intellectual Property Law (Oxford University Press 2016) (U.K.).
- K.N. Kumar, Copyright Law and Digital Innovation (Shubham Dhawan ed., 2d ed. 2021).
- Lucie Guibault & Bernt Hugenholtz, Copyright and the Challenge of the New Technologies (1st ed. 2019).
- Melville B. Nimmer & David Nimmer, Nimmer on Copyright (1st ed. 2020).
- P. N. Gupta, Law of Copyright in India (1st ed. 2017).
- P. Narayanan, Intellectual Property Law 205-06 (4th ed. 2020).
- Paul Goldstein, International Copyright: Principles, Law, and Practice 87-90 (3d ed. 2020).
- Peter B. Hirtle, Copyright Law for Librarians and Educators (1st ed. 2016).
- Priya Sharma, Technology and Copyright Protection 89 (Eastern Book Company 2019).
- R. Anthony Reese, Copyright Law and the Digital Economy (1st ed. 2018).
- Robin Feldman, Rethinking Patent Law (1st ed. 2012).
- S. K. Verma & K. V. Kumar, Intellectual Property Rights: A Global Perspective (3d ed. 2020).
- Shinichi Hoshi, Intellectual Property Law in Japan 76-80 (3d ed. 2018).
- T. C. S. S. R. Babu, Copyright Law in India (2d ed. 2021).

• V.K. Ahuja, Law Relating to Intellectual Property Rights (3d ed. 2019).

### **C.** Internet Sources

- Non-Fungible Tokens and Intellectual Property: A Report to Congress, U.S. Copyright Office (Mar. 9, 2024), https://www.copyright.gov/policy/nft-study/Joint-USPTO-USCO-Report-on-NFTs-and-Intellectual-Property.pdf.
- Gautam KM, NFTs, And Copyrights, Registration of a Memorandum of Mortgage by Deposit (Mar. 8, 2023), https://www.mondaq.com/india/copyright/1211232/nfts-and-copyrights.
- Sapna Goundan, Who Owns The Copyright In NFTs?, Sprintlaw (Nov. 2, 2022), https://sprintlaw.com.au/blog/who-owns-the-copyright-in-nfts/.
- What Are Smart Contracts?, Spiceworks (last visited Nov. 12, 2024), https://www.spiceworks.com/tech/innovation/articles/what-are-smart-contracts/.