INTERNATIONAL JOURNAL FOR LEGAL RESEARCH AND ANALYSIS

Open Access, Refereed Journal Multi Disciplinary
Peer Reviewed

www.ijlra.com

 ISSN: 2582-6433

DISCLAIMER

 ISSN: 2582-6433

EDITORIALTEAM

EDITORS

Dr. Samrat Datta

Dr. Samrat Datta Seedling School of Law and Governance, Jaipur National University, Jaipur.Dr. Samrat Datta is currently associated with Seedling School of Law and Governance, Jaipur National University, Jaipur. Dr. Datta has completed his graduation i.e., B.A.LL.B. from Law College Dehradun, Hemvati Nandan Bahuguna Garhwal University, Srinagar, Uttarakhand. He is an alumnus of KIIT University, Bhubaneswar where he pursued his post-graduation (LL.M.) in Criminal Law and subsequently completed his Ph.D. in Police Law and Information Technology from the Pacific Academy of Higher Education and Research University, Udaipur in 2020. His area of interest and research is Criminal and Police Law. Dr. Datta has a teaching experience of 7 years in various law schools across North India and has held administrative positions like Academic Coordinator, Centre Superintendent for Examinations, Deputy Controller of Examinations, Member of the Proctorial Board

Dr. Namita Jain

Head & Associate Professor

School of Law, JECRC University, Jaipur Ph.D. (Commercial Law) LL.M., UGC -NET Post Graduation Diploma in Taxation law and Practice, Bachelor of Commerce.

Teaching Experience: 12 years, AWARDS AND RECOGNITION of Dr. Namita Jain are - ICF Global Excellence Award 2020 in the category of educationalist by I Can Foundation, India.India Women Empowerment Award in the category of "Emerging Excellence in Academics by Prime Time &Utkrisht Bharat Foundation, New Delhi.(2020). Conferred in FL Book of Top 21 Record Holders in the category of education by Fashion Lifestyle Magazine, New Delhi. (2020).Certificate of Appreciation for organizing and managing the Professional Development Training Program on IPR in Collaboration with Trade Innovations Services, Jaipur on March 14th, 2019

 ISSN: 2582-6433

Mrs.S.Kalpana

Assistant professor of Law

Mrs.S.Kalpana, presently Assistant professor of Law, VelTech Rangarajan Dr.Sagunthala R & D Institute of Science and Technology, Avadi.Formerly Assistant professor of Law,Vels University in the year 2019 to 2020, Worked as Guest Faculty, Chennai Dr.Ambedkar Law College, Pudupakkam. Published one book. Published 8Articles in various reputed Law Journals. Conducted 1Moot court competition and participated in nearly 80 National and International seminars and webinars conducted on various subjects of Law. Did ML in Criminal Law and Criminal Justice Administration.10 paper presentations in various National and International seminars. Attended more than 10 FDP programs. Ph.D. in Law pursuing.

Avinash Kumar

Avinash Kumar has completed his Ph.D. in International Investment Law from the Dept. of Law & Governance, Central University of South Bihar. His research work is on "International Investment Agreement and State's right to regulate Foreign Investment." He qualified UGC-NET and has been selected for the prestigious ICSSR Doctoral Fellowship.He is an alumnus of the Faculty of Law, University of Delhi. Formerly he has been elected as Students Union President of Law Centre-1, University of Delhi.Moreover, he completed his LL.M. from the University of Delhi (2014-16), dissertation on "Cross-border Merger & Acquisition"; LL.B. from the University of Delhi (2011-14), and B.A. (Hons.) from Maharaja Agrasen College, University of Delhi. He has also obtained P.G. Diploma in IPR from the Indian Society of International Law, New Delhi.He has qualified UGC – NET examination and has been awarded ICSSR – Doctoral Fellowship. He has published six-plus articles and presented 9 plus papers in national and international seminars/conferences. He participated in several workshops on research methodology and teaching and learning.

 ISSN: 2582-6433

ABOUT US

INTERNATIONAL JOURNAL FOR LEGAL RESEARCH & ANLAYSIS ISSN

2582-6433 is an Online Journal is Monthly, Peer Review, Academic Journal, Published online, that seeks to provide an interactive platform for the publication of Short Articles, Long Articles, Book Review, Case Comments, Research Papers, Essay in the field of Law & Multidisciplinary issue. Our aim is to upgrade the level of interaction and discourse about contemporary issues of law. We are eager to become a highly cited academic publication, through quality contributions from students, academics, professionals from the industry, the bar and the bench. INTERNATIONAL JOURNAL FOR LEGAL RESEARCH & ANALYSIS ISSN 2582-6433 welcomes contributions from all legal branches, as long as the work is original, unpublished and is in consonance with the submission guidelines.

 ISSN: 2582-6433

NON-FUNGIBLE TOKENS (NFTS) AND COPYRIGHT OWNERSHIP: A LEGAL VACUUM IN DIGITAL ASSET TRANSACTIONS

AUTHORED BY - ADV. NEETHU SAJIMON

ABSTRACT

NFTs, or non-fungible tokens, are emerging as a creative sanctuary for writers. They provide artists on the blockchain security, compensation, and scarcity in addition to appearing to be a profitable method to invest in digital art. promises broken by copyright law and the internet. Everything appeared to be possible in the world of blockchain, but in reality, things are more difficult. The picture of NFTs from the perspective of copyright law may not look all that vibrant, in contrast to the promised protection they provide for authors. In actuality, the field of copyright protection is protected by a substantial body of European legislation and case law.

NON-FUNGIBLE TOKENS: A VESSEL FOR ART ON THE BLOCKCHAIN

In addition to offering a new avenue for making enormous sums of money online, NFTs brought up significant issues regarding the validity of the digital art that is being sold on the blockchain: how can an artwork be included in the NFT? Is it possible for an NFT to have copyright protection? This chapter will explore the fundamentals of blockchain technology, with a focus on permissionless blockchains like Bitcoin and Ethereum, in order to gain a deeper understanding of the idea of NFTs and how art may be included in such technology. First, it will be simply divided into the three primary parts of any blockchain: the network, the chain, and the block. Block serves as a container for the extensive list of recorded transactions in a ledger over a period.[1] Hashing as a function is not an invention at all, as it is considered the fundamental cryptogram algorithm generated from the need to compress data to reduce the amount of memory required to store large files. Each block is added in a linear, chronological order (the chain) using a timestamp and a link to the previous block. This bundling of the various data sets into one block, along with the fact that they are linked and timestamped,

[1] David Shariatmadari, "Get Your Crypto at the Ready: NFTs Are Big in 2021," Collins Dictionary, April 30,2025, https://blog.collinsdictionary.com/language-lovers/get-your-crypto-at-the-ready-nftsare-big-in-2021/> and < https://www.collinsdictionary.com/ >.

 ISSN: 2582-6433

elevates the security of the ledger, making the chain nearly impenetrable by cyberattacks because manipulating one block requires hacking the previous and subsequent blocks. The result will always be a distinct hash of a predetermined length, regardless of the length of the data entered. This section focusses on the cryptographic hash type, which can enhance standard hash functions with security features by limiting the ability to change the content of the file in the past. This builds trust in the blockchain system.

The network is the third key component of blockchain technology. The technical framework made up of applications that verify transactions and blocks is known as the blockchain network. Another name for these programs is "full nodes." A node in the context of blockchain refers to the user's computer, which has been authorised to monitor the distributed ledger and act as a communication centre to carry out a number of network operations. Every blockchain node seeks to ascertain whether the recorded block of transactions is authentic. Nodes have the option to approve or reject the transaction in question based on that assumption. The user has the option of operating a full node or a lightweight node while completing a transaction on the blockchain, such as purchasing bitcoin. The lightweight node runs faster because it just needs to download header data, which is a condensed form of the block's data. The miners are rewarded for the full mining process since it ensures that the latest version of the information stored on the blockchain is in check, hence the security and safety of all transactions.[2] It is now time to distinguish between the many kinds of blockchains after providing an overview of distributed ledgers and blockchain technology. Contrary to popular assumption, smart contracts have been around for a while. In reality, Nick Szabo came up with the concept of including code in contracts in the late 1990s in an effort to increase efficiency and eliminate uncertainty in contractual interactions. These code-based contracts were supposed to have a wide range of beneficial features and be managed by digital technology that would guarantee their automated implementation. The "if-then-that" nature of today's smart contracts, which are computer protocols that run on the blockchain, makes it easier to execute contracts without the need for documentation or a centralised authority.

NON-FUNGIBLE TOKENS: ORIGINALITY IN QUESTION

The factors to be taken into account for determining whether a work is deserving of copyright protection are determined by CJEU case law and the current copyright system on a continental

[2] Rakesh Sharma, “Running a Full Bitcoin Node for Investors,” Investopedia, August 15, 2021, accessed April 27, 2025, <https://www.investopedia.com/news/running-full-bitcoin-node-investors/>.

 ISSN: 2582-6433

and international level (Acquis Communautaire). Following its determination, an effort will be made to apply it to Art NFTS. First of all, it should be mentioned that there are two layers of copyright protection for Art NFTs. While the second level investigates the NFT on a more focused scope, as in the underlying art, the first level studies the NFT generally, pursuing a wider scope of analysis. Assuming that the underlying art is protected by copyright, Chapter II will only include first-level analysis.

INTERNATIONAL DIGITAL INSTRUMENTS OF PROTECTION

The Berne Convention (BC), the oldest and most well-known tool for coordinating global efforts to harmonise copyright protection, mandates that all Berne states safeguard works classified as literary and artistic, including books, pamphlets, sculptures, three-dimensional works, and more. There is no legal definition of "original works" in the BC's list of works that are eligible for copyright protection. Rather, it goes on to subtly suggest that the pieces ought to be "original, more importantly, intellectual creations." The TRIPS Agreement of 1994, which established a scope for copyright protection and emphasised that it should encompass expressions rather than ideas, techniques, methods of operation, or mathematical methods, was one among the many subsequent instruments that strengthened the BC.

Moreover, the TRIPS Agreement extends the scope of the list of protected works initially introduced by the BC by adding computer programs, in source or object code, as well as compilations of data or other material, although not offering any protection to the data itself.[3] Despite being seen as a trailblazer in adapting to the rapidly changing digital landscape, the TRIPS Agreement provides little clarity in the current digital landscape, let alone web 3.0. As a result, continental attempts have been made to provide increasingly robust copyright protection that takes into account the rapidly evolving digital landscape of today. These efforts will be examined in the section that follows.

EUROPEAN INSTRUMENTS OF PROTECTION

The role of NFTs in the 21st century is similar to that of printing technology in the 14th century: it presents both a problem and an opportunity to boost the economic significance of copyrights by facilitating widespread illegal access to and distribution of copyrighted works of art. An "information society" is defined as "a society where a significant degree of activity focusses on

[3] Article 10 of the TRIPS Agreement.

 ISSN: 2582-6433

the creation, distribution, use, and reuse of information which offers opportunities like teleworking, e-health, and e-learning to name but a few but also has negative effects through new forms of crime, such as violations." This idea emerged as a result of technological advancements. A unified EU copyright regime that respects these technical developments and safeguards the uniqueness of online works was urgently needed. Numerous attempts to control technological advancements for copyright protection took the form of vertical directives. The most significant of these were the Database Directive (DD) (1996) on the protection of original databases, the Term Directive (TD) (1993) harmonising the standards for photograph protection, and the Computer Programs Directive (CPD) (1991) on the copyright protection of computer programs. These vertical directives broadened the definition of copyright-protected works to include databases, images, and software, provided that they represent the author's own original work (AOIC).

COPYRIGHT SUBSISTENCE IN COMPUTER PROGRAMS

Article 9(2) of the TRIPS Agreement states that the expression of an idea, not the idea itself, is protected as a fundamental premise of copyright law. Article 1(2) of the CPD states that "protection in accordance with this Directive shall apply to the expression in any form of a computer program" under EU lex specialis. Under this Directive, copyright does not protect the concepts and ideas that underpin any part of a computer program, including its interfaces. The goal of the legislation is to separate computer programs into two categories: non-authorial and authorial, which are both protected by copyright laws. "The expression in any form," including the preliminary design work, is what constitutes the authorial element. In contrast, the non-authorial aspect pertains to the computer program's functionality, including the programming language and data file format, according to the CJEU in the SAS case. These components are not protected by copyright law as they are not regarded as a means of expressing the computer program. Furthermore, the CPD highlights in article 1(3) the significance of originality as the only factor used to assess whether computer programs are still viable for protectability.

COPYRIGHT SUBSISTENCE IN PHOTOGRAPHS

"*There is an important difference between a technology that allows everyone to display their originality and a technology that causes everyone to display originality*", says Hughes[4] when

[4] Justin Hughes, "The Photograph's Copyright - Photograph as Art, Photograph as Database," Harvard Journal of Law& Technology 25, no. 2 (Spring 2012): 328–412. p.356.

 ISSN: 2582-6433

explaining Sontag's observations on photography. Finding uniqueness in a photograph has proven to be a delicate subject because it may be argued that snapping a picture lacks any creative touch, even though originality is undeniably present in literary and artistic works like writing and painting. Article 6 of the TD, however, established the threshold of originality, stating that "photographs which are original in the sense that they are the author's own intellectual creation shall be protected in accordance with Article 1." Their eligibility for protection will not be determined by any other criteria. Nonetheless, "Member States may provide for the protection of other photographs," according to the final clause of Article 6. A double-tiered system of protection was made possible by this double norm. While the first safeguards original images, the second allows member states to grant related rights protection (sui generis) to photographs that do not meet the originality criteria.

COPYRIGHT SUBSISTENCE IN DATABASES

The DD, which has a double protection mechanism, reflects the idea of originality as well. The first safeguards databases if their content is unique, meaning it is the author's original work of intellectual property. In addition to being "without prejudice to any rights subsisting in those contents themselves," this protection "shall not extend to their contents." The European Court of Justice (ECJ) confirmed in Fixtures Marketing Ltd v. Organismos Prognostkon Agonon Podosfairou that the directive's article 3 definition is intended to embrace future databases in whatever form, despite criticism that it is too wide and ambiguous. As a result, copyright exists in databases if it can be demonstrated that their selection and arrangement are unique. It can also extend to their content if these components are unique. For example, if a database contains an inventory of paintings, the paintings would be protected by copyright if they are unique. Related rights (sui generis) are the second type of protection that safeguards databases that are not original, but they might also be protected if there was a significant qualitative or quantitative investment made in gathering, confirming, and presenting the data. Independent of the AOIC norm, a suigeneris kind of protection was granted to the second type of database since originality was not a suitable criterion to grant protectability.

ATTEMPTS AT HARMONISATION

Member states differed in how they protected originality in the information age as a result of this vertical piecemeal legislation. The notion of originality was actually defined in relation to predefined subject matter, which raised doubts about other works that do not fit into the

 ISSN: 2582-6433

databases, software, or photography categories. By taking a horizontal strategy with the 2001 adoption of the Information Society Directive (InfoSoc Directive), the European parliament attempted to comply with this fragmentation. It combined the three-step test found in Article 9(2) of the Berne Convention (BC), Article 13 of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), and Article 10 of the WIPO Copyright Treaty (WCT) with a closed list of acceptable limitations and exceptions (L&E). The Digital Single Market Directive (DSM Directive), which amends the InfoSoc Directive's regulations to conform "to the evolution of digital technologies," strengthened the harmonising effect of the InfoSoc Directive eighteen years later. By adopting a number of new directives, including the Orphan Works Directive (2012), Collective Rights Management Directive (2014), Marrakesh Directive and Regulation (2017), and the Portability Regulation (2017), the commission sought to strike a balance between the interests and viewpoints of society and rights holders who seek robust protection in order to foster the free flow of knowledge and innovation within the EU single market.

MINTING AN ART NFT: PROTECTION OR INFRINGEMENT

The author's economic rights may be involved in the development of an Art NFT, even though originality is not a requirement for them. The underlying artwork is really digitised, stored on a computer's hard drive, uploaded to a website or centralised online servers (like AWS or Google Cloud), and linked to the NFT Marketplace and other platforms. While section II of chapter III focusses on the legal aspect, outlining the author's various economic rights and determining whether they apply to those various phases, section I of chapter III concentrates on the technical aspect, stating the many procedures that go into establishing an Art NFT.

THE COURSE OF LIFE OF THE UNDERLYING DIGITISED ART124.

DIGITISATION AND STORAGE ON THE HARD DRIVE

Tokenisation is one of the new forms of art exploitation made possible by technological advancements. First and foremost, the artwork needs to be digitised, or, to put it another way, a digital copy needs to be made. E-searchable databases like Westlaw and Lexis/Nexis, which make "every sentence searchable," are examples of the most widely used digitisation techniques. The digitisation trend is also growing amongst museums, such as the

 ISSN: 2582-6433

Rijksmuseum,[5] that are going online to preserve their works, create digital inventories, and overall, safely manage their collections. The process of digitisation encompasses a wide range of artistic mediums, including auditory, visual, literary, and artistic works in their analogue forms. Any of these pieces, as well as others, can be connected to Art NFTs. An Art NFT can represent the underlying artwork if it has been digitalised. Depending on the degree of automation and human involvement, Margoni distinguishes three categories of digitisation processes. Full automation (e.g., Google Inc. scanning every book in a collection automatically), semi-automation (e.g., a human operator taking pictures or manually photocopying collections for inventory or classification purposes), and human intervention (e.g., a photographer taking various shots in various light conditions to create high-resolution images) are the three types of digitisations. This study will concentrate on the general goal of creating a digital photographic reproduction of an existing literary or creative work, rather than the variations in the level of human interaction.

CLOUD STORAGE AND ONLINE ACCESS

Following the digitisation process, the next step is to store the digital artwork on a public cloud computing system, commonly referred to as "public cloud storage," which includes AWS cloud storage, Google Cloud, or Microsoft Azure Portal. These systems are centred around data storage and administration. Legally speaking, cloud storage was described as "intended for the private use of the beneficiary, but they can also include sharing functions" in Advocate General Szpunar's decision on the subject in the VCAST case. Public cloud storage has the benefit of being accessible to everybody with an internet connection at any time once the material has been posted to the cloud because the server is shared by all internet users.

CONCLUSION

The ERC-721 standard model, which is a crucial component of NFTs, was developed thanks to the permissionless DLT's favourable environment for implementing smart contract technology. The other two NFT building blocks the underlying digital art and the minting procedure were then covered in the chapter. With an emphasis on Art NFTs, each of these building pieces helped to develop the NFT. For blockchain fans searching for profitable

[5] "In 2012, 125,000 museum objects were presented with high-resolution images in an elaborate web environment following the newest design standards." Viola Ruhse, 'The Digital Collection of the Rijksmuseum: Open Content and the Commercialization of a National Museum', in Museum and Archive on the Move: Changing Cultural Institutions in the Digital Era, ed. Oliver Grau (De Gruyter, 2017), 37–56, <https://doi.org/doi:10.1515/9783110529630-003>. p.37.

 ISSN: 2582-6433

financial opportunities and artists seeking protection for their work online, this new web 3.0 product was seen as a gold mine. From a distance, the triple package of promises primarily ownership, compensation, and scarcity appeared to be a sanctuary, but it was actually a fake hell on the horizon. Finding a balance between copyright, freedom of innovation, and artists' interests within the current legislative framework may appear difficult after researching the relationship between Art NFTs and EU copyright legislation. However, creativity may be hampered if cultural institutions are prohibited from producing NFT replicas of its masterpieces, as is the case in Italy. The EU legislator must take prompt action and handle this unique circumstance, as it did in the DSM Directive, given the lack of a copyright framework to govern Art NFTs and the flimsy attempts to bring NFTs under the MiCA.