

Art of Money Laundering with Non-Fungible Tokens: A myth or reality?

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Abstract

As the rules for countering money laundering constantly change, criminals find new methods and platforms to launder their “dirty” money. Recently, such new platforms have included the art market and the use of crypto currencies. Subsequently, both of these sectors were added to the list of sectors susceptible to facilitate money laundering. Apart from the traditional art market, criminals may use digital art in order to facilitate their activities. The rise of the digital art market with the expansion of Non-Fungible Tokens (NFTs) is a new area of concern for law enforcement agencies. Anonymity and price volatility of NFTs create a unique and exploitable environment for criminals. The complex nature and uncertain legal status of NFTs further complicate the counter measures one can take. This paper explains what NFTs are, analyses their relation to money laundering risks and scrutinises their legal status in the EU. In doing so, it identifies gaps in the law and training needs of law enforcement agencies. Finally, the paper provides potential solutions and recommendations in relation to these gaps. The paper offers a novel study on NFTs and aims to pave the way for further comparative studies related to NFTs.

Keywords: Non-Fungible tokens (NFTs), art market, money laundering, training

Introduction¹

Money laundering is a global phenomenon which is under constant scrutiny. At international, European and national levels, new rules are constantly adopted in order to tackle money laundering. These new rules are dependent on the evolving character of markets and financial systems as well as the methods criminals use to launder their illegal proceeds. From laundering the proceeds of drug trafficking, which was the starting

point in the fight against money laundering, to money laundering of cryptocurrencies gained from ransomware attacks (Akdemir, Lawless & Turksen, 2021), legislators have been adopting new rules to keep at pace. These new rules aim to address new phenomena and respond to new pathways used by criminals. One such phenomenon unfolding in a new platform is the art market which has been lately added to the list of sectors susceptible to facilitate money laundering.

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There are particular characteristics of art market which make it attractive to money launderers. Firstly, for many decades, the art market was characterised by a lack of robust regulation, and efforts to impose anti-money laundering rules on art market dealers have not succeeded in bringing tangible results (Akdemir, Lawless & Turksen, 2021; Transparency International UK, 2015; Hufnagel & King, 2019). Furthermore, the art market's lack of transparency and its volatile prices made it a perfect sector for money laundering (Purkey, 2010). Prices are, normally, quite high in the art market and the price of an art work can be speculative. The price can go up or down depending not only on the evaluation of the art work by art experts but also the price that potential buyers are willing to pay. As a result, an art work can be expensive but, if criminals want to launder a high amount of money through art, the price paid could easily be manipulated and/or forged in order to reduce the price value thus no suspicions would be raised (Purkey, 2010).

Moreover, the art sector is characterised by secrecy and anonymity which presents disadvantages (Burroughs, 2019). Secrecy and anonymity are problematic in relation to countering money laundering and recovery of criminal assets (International Monetary Fund, 2019). Art works are often offered for sale anonymously and potential buyers are represented by auction houses or art dealers. Therefore, criminals can sell or buy art without having their identities revealed to anyone. This path of secrecy and anonymity to art trade has risen the number of criminals involved in the art market (International Monetary Fund, 2019).²

For several years, the art market was not regulated in relation to anti-money laundering rules in the EU. The EU, in response to international concerns (Burroughs, 2019), adopted the Fifth Anti-Money Laundering Directive on April 2018 which requires "(...) persons trading or acting as intermediaries in the trade of works of art, including when this is carried out by art galleries and auction houses, where the value of the transaction or a series of linked transactions amount to EUR 10000 or more" (European Parliament and European Council Directive, 2018, Article 1(c)(i)) to conduct due diligence searches and, when appropriate, to file a suspicious activity report (SAR) to national Financial Investigation Units (FIUs).

Despite the introduction of anti-money laundering rules, a new area of concern was identified: the expansion of NFTs (International Monetary Fund, 2019; Europol, 2022). There are several attributes that make NFTs attractive for criminals to launder their illegal funds through this medium. Firstly, the peer-to-peer transactions of NFTs without the involvement of intermediaries may or may not be recorded on a public ledger. Secondly, the fact that NFTs can be transferred online without limitations of geographical location and the anonymity of the internet make NFTs susceptible to be abused by money launderers.

The focus of this article is on NFTs and their relation to money laundering risks they pose. In the first part, the concept of NFTs in the art market is analysed. Then, their relation to money laundering and whether existing anti-money laundering rules at the EU level can capture NFTs are critically examined. In the final part, recommendations will be made on how to better regulate NFTs in the anti-money laundering context.

Definition of NFTs

NFTs can be considered as a new form of digital art. Traditionally, we think of art – or high art – as a painting by Picasso, Dali or Modigliani. The times are changing – so does art. NFTs are a new trend and, may be, the future of art. They became particularly "famous" during spring 2021 when Beeple's collage, 'Everydays – The First 5000 Days' was sold by Christie's for USD 69 million (Reyburn, 2021).³ During the COVID-19 pandemic, art found new ways to expand or, from a more critical perspective, the rise of NFTs has coincided with the traditional art market being subjected to stricter anti-money laundering rules in the EU (European Parliament and European Council, 2018). Putting the traditional art market on the radar of anti-money laundering rules, Financial Intelligence Units (FIUs) and law enforcement agencies may have driven criminals to search for alternative methods of laundering their proceeds of crime.

NFTs can be various types of digital or virtual assets (Dowling, 2021) and the most common types are objects in virtual worlds, artworks and digitalised characters from sports, music or other artistic activities. NFTs are blockchain-based tokens which securely map

² On page 33 of this IMF report, it is highlighted that as noted by the FBI and Interpol, "in comparison with other trade sectors, the art market faces a higher risk of exposure to dubious financial practices" because "the volume of legally questionable transactions is noticeably higher than in other global markets".

³ This has been the highest amount of money paid for an NFT so far.

ownership rights to digital/virtual assets (Ante, 2021). As paintings that belong to someone are exhibited in museums and art galleries for the public, NFTs are analogous to that as they provide a means of representing possession or ownership of digital assets such as games, art and music. The ownership of NFTs is usually registered on an Ethereum network.⁴ The Ethereum network is functioning 'as one large computer which executes programs in lockstep' and which is 'virtualised by a network of other machines' (Dannen, 2017).

There is a specific distinction between NFTs and other types of blockchain and crypto tokens such as Bitcoin. Cryptocurrencies are fungible; there is no distinctive element between two Bitcoins as they have the same characteristics and they convey the same rights to their owners, thus called fungible tokens. NFTs, on the other hand, as their name suggests, are a special form of blockchain-based tokens as they represent a unique value that cannot be fully replaced by a different or similar token (Ante, 2021). Each NFT is unique and different from other NFTs, thus non-fungible (non-replaceable) as in the case of a unique piece of art. NFTs are traded on specialised marketplaces such as Opensea for digital artwork (Jordanoska, 2021). By purchasing NFTs, the collector or the purchaser acquires a certificate of authenticity which cannot be modified, lost or destroyed (Carron, 2021).

Money Laundering and NFTs

The sale of an NFT for USD 69 million and the rise in prices of CryptoPunks demonstrate a volatile market where exorbitant amounts of money are involved (Christies, 2021). Concerns have been raised by regulators and market experts around the globe whether these amounts of money spent on NFTs are used in order to circumvent the increasingly robust anti-money laundering legislation both at international and the EU levels (US Department of Treasury, 2022; Bluemel, 2022). These concerns were confirmed by the 2022 Crypto Crime Report which demonstrated that NFTs may be associated to money laundering. In the third quarter of 2021, the 'value sent to NFT marketplaces by illicit addresses jumped significantly', worth around 1 million US dollars' worth of cryptocurrency. In the fourth quar-

ter, the number went to around 1.4 million US dollars. In both quarters, the big majority of the activities derived from 'scam-associated addresses sending funds to NFT marketplaces to make purchases'. In addition, both quarters present important amounts of stolen funds to be used to purchase NFTs. A bigger concern is that, in the fourth quarter of 2021, around 284,000 US dollars' worth of cryptocurrency are used to buy NFTs from 'addresses with sanctions risk' (Chainalysis, 2022).

One major challenge in the context of anti-money laundering compliance and law enforcement contexts is whether NFTs are considered as a work of art or not. For the money laundering concerns, this dilemma is significant. Recently, Wikipedia editors have voted not to classify NFTs as art which sparked outrage in the crypto community (Artnet News, 2022). The example of Wikipedia is not the one that will inform legislation or the judiciary but it demonstrates the challenging nature or acceptance of NFTs as art objects (Carron, 2021).⁵ From the reactions coming from the crypto world, the common argument is that we cannot challenge digital art and cancel digital artists. This ongoing debate around NFTs as works of art is important for its ramifications in the fight against money laundering. While NFTs are unique pieces of code (tokens) linked to an underlying asset, it is not an artwork itself (Gould, 2022). Even if NFTs are not art *per se*, it is at least a means of trading in art or a digital asset with a significant value (Gould, 2022). Therefore, if NFTs are considered as digital art and a valuable asset, repercussions occur in the fight against money laundering.

At the EU level, the Fifth EU Anti-Money Laundering Directive does not provide an explicit definition of "works of art" nor does it define or mention NFTs. Thus, it is not certain whether NFTs would be considered as works of art under the Directive and be subject to anti-money laundering and terrorist financing rules including as CDD and Know Your Customer (KYC) practices. Because of the common features between traditional art market and NFTs such as price volatility and anonymity of buyers,⁶ it may be the case that certain regulators will voluntarily decide to consider NFTs as works of art and put these under anti-money laundering rules for traders of NFTs.

⁴ Ethereum. (2022). Available from <https://ethereum.org/en/> [Accessed 29th June 2022].

⁵ NFTs are linked to a unique asset that may be a GIF, a song, a limited-edition print, or even an "analogue" painting – as work of arts.

⁶ Anonymity is a major issue in relation to NFTs. From the trading perspective, there is a risk that users will trade with themselves (wash trading) and, thus, will be able to launder their money themselves. Criminals, by abusing anonymity, can create their own NFT, register it on a marketplace and then purchase it themselves.

At present, establishing what NFTs are seems to be a major challenge; should they be considered as virtual currencies, securities, crypto assets, digital art or collectibles. The Fifth EU Anti-Money Laundering Directive does not provide clear details on the reporting requirements on NFTs despite its regulatory extension to virtual currency exchanges and custodian wallets. One possible explanation is that, back in 2018 when the Fifth EU Anti-Money Laundering Directive was created, NFTs were not widely known or used; thus, they stayed out of regulatory scope of the EU's Anti-Money Laundering legal regime.

Nevertheless, the European Commission proposed in September 2020 a regulation which may include rules that would apply to NFTs. The Markets in Crypto-assets Regulation (MiCAR) provides a definition for crypto-assets, the first EU legal instrument to do so. MiCAR thus defines crypto-assets as “digital representation of value and rights which may be transferred electronically, using distributed ledger technology or similar technology” (European Commission, 2019, Article 3(1)(2)). The purpose of the MiCAR is to put in place control and monitoring measures for crypto-assets which are not regulated under the existing EU financial legal framework (European Parliament and European Council, 2014). The proposal is expected to be adopted in the next couple of years and to be implemented by Member States no later than 2024.

The MiCAR proposal aims to provide rules on the public offering of crypto-assets, the admission of crypto-assets on a trading platform, the licencing of crypto-asset service providers and the implementation of market abuse rules for crypto-assets businesses (European Commission, 2019, p.2). There are three main categories of token in the proposed MiCAR. These are asset-referenced token, e-money token and other crypto-assets with different requirements for each in relation to licencing and issues. NFTs may fall under the last category, “other crypto-assets”. In this last category, issuers of crypto-assets do not have any specific licencing obligations but are required to be a legal entity (even if they are established outside the EU) and to comply with certain business and governance conduct requirements (European Commission, 2019, Article 13).

While this category of “other crypto-assets” will be subject to specific rules on *inter alia* admission to trading on a trading platform, the authorisation of related service providers and market abuse rules, the proposal

exempts issuers of crypto-assets which are unique and non-fungible from the requirement to publish a white paper for public offerings. Consequently, NFTs providers and traders will be exempted from the obligation to publish such a white paper but they will be subject to anti-money laundering and counter-terrorist financing rules. In the recitals of the MiCAR, special reference is made to “virtual assets” as defined by the Financial Action Task Force (FATF). According to this definition, virtual asset ‘is a digital representation of value that can be traded, or transferred, and can be used for payment or investment purposes’ (FATF, 2021a). In its latest draft guidance on March 2021, FATF replaced a previous reference to “assets that are fungible” with “assets that are convertible and interchangeable” (FATF, 2021b). This definition from FATF may involve NFTs but this is not clear, yet.

Training for law enforcement agencies

The area of NFTs, as demonstrated, is a fast-evolving field that combines technology and art and which lacks a specific regulatory framework. The record sales of NFTs as well as the expanding creation and sale of them create an emerging need for training for those entities responsible for governance, suspicious transaction reporting and law enforcement in this growing area. LEAs need to be up to date and trained to understand how NFTs work and the risks they pose. The need for training was highlighted in the – long awaited – report of the US Department of Treasury (USDT) entitled “Money Laundering and Terror Finance Through the Trade in Works of Art” in February 2022 (US Department of the Treasury, 2022). The report stresses the need to regulate and control NFTs as an expanding area of digital art. The USDT rings the bell; as the traditional art market has to respect anti-money laundering and terrorist financing rules, the digital art is still in a grey – not adequately – regulated zone (US Department of the Treasury, 2022).

Thus, given the risks, the USDT recommends updating guidance and training for law enforcement agencies, as well as customs and asset recovery agencies. Law enforcement agencies should develop their internal training on money laundering and high-value art (including NFTs) which can include experts in the field of money laundering via the art market in order to “identify the risks and opportunities” available to launderers. The report proposes the creation of a “written toolkit and

specific methodology with strategies for investigating money laundering” in the art sector. While the need for training is apparent, the question of ‘what is the most efficient way to organise this training?’ remains. The novelty of NFTs and their fast development create a new sector where specialisation and expertise are scarce. Our research revealed that the number of academic training programmes on NFTs is limited and that hardly any LEA has so far received designated training on NFTs.⁷

Firstly, on an academic level, the teaching of art law, NFTs and money laundering is quite limited. Higher education institutions do not offer courses on NFTs and this means that law enforcement agencies may not benefit from these courses if they decide to follow it on an individual basis (Queen Mary – University of London, 2022; Skipp, 2022).⁸ Secondly, there are several private organisations such as Christie’s and the Blockchain Council which offer courses on NFTs (Christie’s Education, 2022). While their courses are designed to provide a good understanding of NFTs, they are not focused on the nexus of NFTs, money laundering and other crime risks and anti-money laundering policies. Finally, there are certain initiatives for training in the crypto world. For example, Crypteya,⁹ one of the websites offering NFTs courses, describes itself as “the biggest, meanest and baddest crypto academy in the world”, a description which does not really fit with the classic academic approach to professional training and development.

Given the scarcity of relevant courses, an optimal solution for the training of law enforcement agencies will be the cooperation with the private sector by establishing Public Private Partnerships (PPPs) with experts in the field (Courtois, Gradon & Schmeh, 2021). Specialisation on NFTs can be created by combining expertise from academia, industry, and independent actors. Combination of such expertise, albeit very rare, can also be found in multidisciplinary European research project such as TRACE.¹⁰ Law enforcement agencies would benefit from bringing all these actors together who could produce insightful work that will assist law enforcement agencies in rapidly emerging fields. Once the Public Private Partnerships are established, training

can be designed and delivered by these stakeholders and lead to continuous building of knowledge exchange for NFTs and other new assets with risks.

If Public Private Partnerships are not an option, the alternative will be the creation of specific NFTs training within the police academies. It is widely known that police academies have their own training programme to educate and prepare their personnel. This training should involve NFTs both from the legal and technological perspectives. The responsible staff should find and hire the most appropriate persons to design this course. Legal scholars, technology experts and other related professionals should come together and train the future generations of police officers. The expertise on digital assets in general should be created within the police academy where possible, which will then allow them to redesign the NFTs course in tandem with their legal and operational eco-systems. As the quality of the training is under pressure and law enforcement agencies may lack personnel, modern equipment and/or facilities, it is imperative to demand better financial resources in order to reorganise and modernise their training (Kleygrewe et al., 2022). NFTs, and the crypto world in general, should have a special place given the global expansion of technology.

The training should include, at first, the genesis of NFTs in the art world. The trading of NFTs did not happen until two years ago when they started expanding but creation of NFTs can be traced back to 2017. Accordingly, the definition and design of NFTs from a technological perspective should be understood critically. Law enforcement agencies should be competent to understand the technological structure of NFTs and their position in the art market. NFTs do not focus on one artistic characteristic such as online images but they extend to other artistic activities such as sports events or music concerts and lyrics. This combination of technology and art should be clearly understood by law enforcement agencies to aid their investigative and forensics work in particular. Furthermore, a business risk analysis of NFTs should be considered; NFTs represent a new “asset” and this excites investors (Kaczynski & Kominers, 2021). It is not common to have a new “asset”

7 At the time of writing this article, several LEAs around Europe (including those present (64 people) in our CEPOL Conference 2022 presentation and the LEA partners in the TRACE Project <https://trace-illicit-money-flows.eu>) indicated that they have not received any specific training on NFTs.

8 The first one is an LLM about art, business and law where, this year, certain classes are introduced for NFTs. The second is the recent announcement of Miami Law School introduction of its innovative NFTs course.

9 Crypteya Academy. Available from: <https://crypteya.academy> [Accessed 29th June 2022].

10 For more information about the TRACE project, see: <https://trace-illicit-money-flows.eu>

in the market and certainly not in such a unique combination of art and technology.

Moreover, the training should extend to the legal aspects of NFTs. The first issue is related to the definition of NFTs from a legal perspective. As analysed above, law enforcement agencies should become aware of the legal uncertainty covering NFTs in the art market and to understand whether anti-money laundering rules apply to them. Are they art work, commodities, collectibles or virtual assets? This is a crucial point which will determine which legal rules are applied in terms of business practices, taxation, anti-money laundering reporting obligations and law enforcement. More specifically, law enforcement agencies should prepare lists of the different operators which trade in NFTs. These operators should be monitored and law enforcement agencies should present guidelines to investors and businesses on how to handle diligently their financial relations with traders of NFTs. In addition, specific guidelines should be developed for art dealers. These guidelines should be prepared once the training of law enforcement agencies is complete.

For all the different steps of this training, law enforcement agencies should collaborate with experts who will be able to explain and analyse the new phenomenon of NFTs. Academia, technology experts, businesses, industry, the art dealers and many others should become allies of the law enforcement agencies for better and efficient training activities.

Recommendations

Anonymity and volatility coupled with a lack of regulatory rules are all traits of NFTs which make them attractive to money launderers (Congressional Research Service, 2019).¹¹ A first solution to the challenges posed by NFTs is legal and regulatory certainty. Regulators should step in and provide answers to issues such as the definition of an NFT and the anti-money laundering rules that should be applicable to those trading in NFTs. As the market of NFTs expands, a pressing need is to define NFTs. As analysed above, by providing a clear definition, NFTs can be put under an existing category (e.g. other virtual assets under MiCAR) and be regulated by these legal provisions. Alternatively, if NFTs are

considered to be works of art, then anti-money laundering rules, under EU law and its Fifth Anti-Money Laundering Directive, would apply.

Legal uncertainty surrounding NFTs create challenges not only for law enforcement agencies (i.e. police, tax authorities, FIUs, etc.) and regulators but also affect the legitimate traders of NFTs who respect, despite the absence of specific regulation, anti-money laundering rules. By regulating NFTs, legal clarity and consistency would be provided to legitimate traders of NFTs and to NFTs holders which in turn could boost the functioning of this new asset and optimise its benefits for the society (Congressional Research Service, 2019). The interest in legal certainty should be a driving force for regulators to enact legislation and clear the grey legal area where NFTs are positioned at the moment.

A legislative framework governing NFTs can be achieved not only by focusing on EU's *acquis communautaire* but also via national laws of Member States which can instigate model rules for others to emulate. Given the cross-border trading of NFTs with ease, the EU's legislative branches should at least conduct comparative research and refine and harmonise the best legal solutions that can be adopted at the EU level. As the EU does not have exclusive competence over money laundering and new technologies, Member States have a significant responsibility to develop their laws on these issues. Apart from the Member States, inspiration can be found to other legal systems such as the UK, the US or Japan where NFTs are widely traded. It should be borne in mind that the US and the UK are two countries where their respective governments have announced plans to reform crypto asset regulations in order to attract investments (HM Treasury, 2022; The White House, 2022). In tandem with the laws of these strategic partners, the EU can design and propose legislation on crypto assets and, most specifically, NFTs.

Whilst a new EU legislation may take several years to draft and come in to force, regulators and law enforcement agencies can take a proactive role by issuing guidelines as a soft law instrument. In the banking and financial sector, soft law instruments, such as the 40+ Recommendations of FATF, OECD's Ten Global Principles¹² or the Basel II Committee rules, have had consid-

¹¹ The same characteristics make crypto currencies attractive to criminals.

¹² OECD. Ten Global Principles. Available from: <https://www.oecd.org/tax/crime/fighting-tax-crime-the-ten-global-principles-first-edition-63530cd2-en.htm> [Accessed 29th June 2022].

erable success (Turner, 2015). Consequently, guidelines should be issued for NFTs in which more information on how to handle suspicious NFTs transactions and on how to apply anti-money laundering rules and policies are articulated. Filing of suspicious transaction reports (STRs) will be a significant aid for law enforcement agencies and if the crypto market starts submitting STRs, it will be a clear sign of their willingness to safeguard the crypto market against criminal activities. These STRs can inform the law enforcement agencies about the risk factor/s surrounding a particular NFTs transaction, and can include the usual know your customer information as well as the IP address and the value of the transaction. Legitimate traders of NFTs will, probably, follow the recommendation of filing STRs in order to be compliant with the issued guidelines and to avoid potential sanctions for non-compliance.

Furthermore, specific guidance in these guidelines should be given to compliance departments on how to address issues with NFTs and money laundering. Compliance professionals (e.g. money laundering reporting officers and auditors) will most likely follow these – non-compulsory – guidelines in an effort to keep their businesses “clean”. At the same time, FIUs and law enforcement agencies will benefit from this as more information on NFTs will be available to them in order to investigate suspicions of money laundering.

Such guidelines should be carefully drafted in sincere consultation with key stakeholders including art dealers and auction houses, cybersecurity professionals, blockchain specialists and crypto currencies experts. Finally, a registry for stolen or fraudulently purchased NFTs similar to existing databases maintained by Interpol, FBI and the Art Loss Register should be instigated urgently (Interpol, n.d.; FBI, n.d.; The International Art and Antique Loss Register, n.d.). Such a register will aid law enforcement agencies to monitor the NFTs market and pursue not only money laundering but also various predicate crimes such fraud, forgery and theft.

Finally, apart from the legal and regulatory changes needed in this field, it is necessary for law enforcement agencies to enhance their training on NFTs. As discussed above, law enforcement agencies should consider their training needs and design courses on NFTs. We have proposed in this article several ways to achieve these training needs. Law enforcement agencies should be proactive and ready to tackle this phenomenon. In this regard, law enforcement agencies should carefully design specific training on NFTs by combining legal and technology expertise from the inside (police academies) and from the outside (universities and/or private companies). The accomplishment of a good training will allow law enforcement agencies to better investigate and prosecute illegalities on NFTs.

References

- Akdemir, N., Lawless, C. J. & Turksen, U. (2021) *Cybercrime in Action*. Nobel Academic Publishing.
- Ante, L. (2021) Non-fungible token (NFT) markets on the Ethereum blockchain: Temporal development, cointegration and interrelations. *Blockchain Research Lab Working Paper Series*, 22, 1.
- Artnet News. (2022) Wikipedia Editors Have Voted Not to Classify NFTs as Art, Sparking Outrage in the Crypto Community. Available from: https://news.artnet.com/market/wikipedia-editors-nft-art-classification-2060018?utm_content=from_www.artnet.com&utm_source=Sailthru&utm_medium=email&utm_campaign=EU%20Jan%2014%20AM&utm_term=EUR%20Daily%20Newsletter%20%5BMORNING%5D [Accessed 29th June 2022]
- Bluemel, J. (2022) NFTs – the new art of Money Laundering. IDnow. Available from: <https://www.idnow.io/blog/nft-non-fungible-tokens-new-art-money-laundering/> [Accessed 29th June 2022]
- Burroughs, T. E. (2019) US and EU Efforts to Combat International Money Laundering in the Art Market are no Masterpiece. *Vanderbilt Journal of Transnational Law* 52(4), 1061-1062.
- Carron, L. (2021) ABCs of NFTs, Art and Law. *NYSBA Entertainment, Arts and Sports Law Journal*, 32(2), 13.
- Chainalysis (2022) *The 2022 Crypto Crime Report*.
- Christies (2021) 10 things to know about CryptoPunks, the original NFTs. Available from: <https://www.christies.com/features/10-things-to-know-about-CryptoPunks-11569-1.aspx> [Accessed 29th June 2022]
- Christie's Education (2022) Virtual Course Understanding Crypto Art and NFTs. Available from: <https://education.christies.com/courses/continuing-education/short-courses/understanding-crypto-art-nfts> [Accessed 29th June 2022]

- Congressional Research Service. (2019) Virtual Currencies and Money Laundering: Legal Background, Enforcement Actions, and Legislative Proposals.
Available from: <https://sgp.fas.org/crs/misc/R45664.pdf> [Accessed 29th June 2022]
- Courtois, N.T., Gradon, K. T. & Schmeh, K. (2021) Crypto Currency Regulation and Law Enforcement Perspectives. Section 11.1.
Available from: <https://arxiv.org/abs/2109.01047> [Accessed 29th June 2022]
- Dannen, C. (ed.) (2017) Introducing Ethereum and Solidity: Foundations of Cryptocurrency and Blockchain Programming for Beginners. Berkeley, Apress.
- Dowling, M. (2021) Fertile LAND: Pricing non-fungible tokens. Finance Research Letters, 44, January.
- European Commission (2019) Proposal for a Regulation of the European Parliament and of the Council on Markets in Crypto-assets, and amending Directive (EU) 2019/1937, COM/2020/593 final.
- European Parliament and European Council (2018) Directive 2018/843 of 30 May 2018 amending Directive 2015/849/EU on the prevention of the use of the financial system for the purposes of money laundering or terrorist financing, and amending Directives 2009/138/EC and 2013/36/EU [2018] OJ L156/43.
- Europol (2022) Illicit Trafficking in Cultural Goods, Including Antiquities and Works of Art.
Available from: <https://www.europol.europa.eu/crime-areas-and-statistics/crime-areas/illicit-trafficking-in-cultural-goods-including-antiquities-and-works-of-art> [Accessed 29th June 2022].
- FBI (n.d.) National Stolen Art File.
Available from: <https://www.fbi.gov/investigate/violent-crime/art-theft/national-stolen-art-file> [Accessed 29th June 2022]
- Financial Action Task Force (2021a) Virtual Asset.
Available from: <https://www.fatf-gafi.org/glossary/u-z/> [Accessed 29th June 2022]
- Financial Action Task Force (2021b) Public consultation on FATF draft guidance on a risk-based approach to virtual assets and virtual asset service providers.
Available from: <http://www.fatf-gafi.org/publications/fatfrecommendations/documents/public-consultation-guidance-vasp.html> [Accessed 29th June 2022]
- Gould, E. (2022) Can an NFT be art? And why it matters.... Institute of Art & Law.
Available from: <https://ial.uk.com/can-an-nft-be-art-and-why-it-matters/> [Accessed 29th June 2022]
- HM Treasury (2022) Government sets out plan to make UK a global cryptoasset technology hub.
Available from: <https://www.gov.uk/government/news/government-sets-out-plan-to-make-uk-a-global-cryptoasset-technology-hub> [Accessed 29th June 2022]
- Hufnagel, S. & King, C. (2019) Anti-money laundering regulation and the art market. *Legal Studies*, 40 (1), 131-150.
- International Monetary Fund. (2019). The Art of Money Laundering. *Finance & Development*, 56(3), 30-33.
- INTERPOL (n.d.) Stolen Works of Art Database.
Available from: <https://www.interpol.int/Crimes/Cultural-heritage-crime/Stolen-Works-of-Art-Database> [Accessed 29th June 2022]
- The International Art and Antique Loss Register (n.d.) The Art Loss Register.
Available from: <https://www.artloss.com> [Accessed 29th June 2022]
- Jordanoska, A. (2021) The exciting world of NFTs: a consideration of regulatory and financial crime risks. *Butterworths Journal of International Banking and Financial Law*, (10) 716.
- Kaczynski, S. & Kominers, S.D. (2021) How NFTs Create Value. Harvard Business Review.
Available from: <https://hbr.org/2021/11/how-nfts-create-value> [Accessed 29th June 2022]
- Kleygrewe, L., Oudejans, R.D., Koedijk, M. & Hutter, R.I. (2022) Police Training in Practice: Organization and Delivery According to European Law Enforcement Agencies. *Frontiers in Psychology*.
Available from: <https://www.frontiersin.org/articles/10.3389/fpsyg.2021.798067/full> [Accessed 29th June 2022].
- Purkey, H. (2010) The Art of Money Laundering. *Florida Journal of International Law*, 22, 111-118.
- Reyburn, S. (2021) JPG File Sells for \$69 Million, as 'NFT Mania' Gather Pace. The New York Times.
Available from: <https://www.nytimes.com/2021/03/11/arts/design/nft-auction-christies-beeple.html> [Accessed 29th June 2022]
- Queen Mary – University of London. (2022) Art, Business and Law LLM.
Available from: <https://www.qmul.ac.uk/postgraduate/taught/coursefinder/courses/art-business-and-law-llm/> [Accessed 29th June 2022]
- Skipp, C. (n.d.) Available from: <https://www.law.miami.edu/news/2022/january/innovation-and-tech-miami-law-first-law-school-us-nfts-course> [Accessed 29th June (2022) Innovation and Tech at Miami Law – First Law School in U.S. with NFTs Course. Miami School of Law. 2022].

- The White House (2022) President Biden to Sign Executive Order on Ensuring Responsible Development of Digital Assets. Available from: <https://www.whitehouse.gov/briefing-room/statements-releases/2022/03/09/fact-sheet-president-biden-to-sign-executive-order-on-ensuring-responsible-innovation-in-digital-assets/> [Accessed 29th June 2022]
- Transparency International UK (2015) 'Don't look, won't find – Weaknesses in the Supervision of the UK's Anti-Money Laundering Rules'. Available from: https://www.transparency.org.uk/sites/default/files/pdf/publications/TI_UK_Dont_Look_Wont_Find.pdf [Accessed 29th June 2022]
- Turner, N.W. (2015) The Financial Action Task Force: International Regulatory Convergence Through Soft Law. New York Law School, 59(3), 547.
- US Department of the Treasury (2022) Study of the Facilitation of Money Laundering and Terror Finance Through the Trade in Works of Art. Available from: https://home.treasury.gov/system/files/136/Treasury_Study_WoA.pdf [Accessed 29th June 2022]

