Editorial: Non-fungible tokens: CryptoPunks and the art of wash trading

Paul Gilmour
Centre for Cybercrime and Economic Crime, University of Portsmouth, UK

Crypto markets saw an explosion in interest in non-fungible token (NFT) trading during early 2021 and fraudsters were quick to capitalise on the success of this new technological phenomenon. Unsurprisingly, regulators and the AML community have been slow to address new cyber risks and grapple with the complex regulatory issues that new digital assets present. NFT trading is still a largely unregulated sector and, despite legislation still lagging behind innovation in many areas of society, trade in NFTs has been subject to increasing scrutiny by governments. This has been partly due to a rise in a type of digital fraud known as wash trading. This editorial will try to shed some light on these emerging issues.

NFTs are a unique form of tradable crypto asset. They exist virtually within the Ethereum blockchain network, a decentralised ledger system secured through the computer process of cryptography (Rahman and Jin, 2023). Ethereum blockchain is vital to how NFTs function. Ethereum supports a broader range of applications and offers a more refined adaptation of the early blockchain that underpins Bitcoin and other virtual currencies in that the Ethereum network supports smart contract functionality and can run various decentralised applications (Cho et al., 2023). NFTs are written within a smart contract - a computer coded agreement programmed to execute automatically once certain predefined conditions have been met (Gilmour, in press; Rahman and Jin, 2023).

NFTs are used as a tool to represent and certify ownership of artwork, music, videos, images or some other marketable asset (Murray, 2021). NTFs cannot be divided, copied or interchanged, hence the term ‘non-fungible’. In this regard, they are unlike cryptocurrencies, such as bitcoin and Litecoin (which can be swapped in value to other forms). However, NFTs can be resold, and because they are unique and scarce tokens, they can fetch a high market value (Chandra, 2022).

Popular CryptoPunk NFTs originally created in 2017 by Larva Labs studio have taken the market by storm. Apparently, only 10,000 exist and their appeal - apart from representing unique characters with differing hair and clothing styles - result from their uniqueness and scarcity. CryptoPunks have contributed some $2.5 billion worth of trading volume since creation and other developers are now creating their own similar collections on other blockchains or platforms (Hayward, 2023).

Various other goods can also be tokenised as an NFT and sold online in virtual spaces or metaverses. For instance, American lingerie company, Victoria’s Secret recently filed a trademark application for collectibles and media to protect their online clothing products marketed in the metaverse. Yet, the rise in NFTs’ use has

emphasised unresolved legal issues within the intellectual property domain. Although the use of NFTs can help investors to innovate by promoting transparency and liquidity in the market, it is worth noting that owning an NFT does not automatically provide someone with the right to own the underlying asset. Buying an NFT within the metaverse is likely to be more complicated from a legal perspective than purchasing the physical asset (Gilmour, in press).

Fraudulent scams involving NFTs have also been on the rise. NFTs can be exploited for various illicit purposes. There have been cases where investors have been duped by counterfeits, fake marketplaces, or fraudulent phishing attacks misdirecting the victim to a fake website resulting in the theft of cryptocurrency or loss of their valuable CryptoPunks (Blackstone, 2022; Genç, 2021). The value of NFT markets have become distorted by bad actors manipulating the value of NFTs through the process known as 'wash trading'. Wash trading in essentially a form of insider trader involving an investor buying and selling an asset at the same time to mislead the market. In the case of wash trading NFT market values, an investor might artificially inflate the value of their NFT by trading it between their own virtual wallets, often multiple times over. First, they sell it to 'themselves' at a higher than normal price, then sell it on to an unsuspected buyer at an inflated price. Online platform, Chainalysis, estimates that NFT traders made $8.9 million in profits from unsuspecting buyers in 2021 alone through the art of wash trading (Chainalysis, 2022). The problem here, of course, is investors often rely on predicting and analysing NFT transactional data to inform their investment decisions and wash trading can distort the value of their investments and contribute greatly to volatility in the market (Cho et al., 2023).

Furthermore, Chen et al. (2022) found evidence of cryptocurrency exchanges also involved in the practice of wash trading. The issue is not new to NFT markets, nor to finance generally. In fact, the first law on wash trading was passed in the United States through the Commodity Exchange Act (CEA) in 1936. It is only now, though, that wash trading has taken on new digital forms. It could be argued that wash trading has become such a problem because of a lack of regulation in the crypto market. Many crypto exchanges do not require buyers and sellers of NFTs to identify themselves, rather they only need to link their own crypto wallets. Similarly, NFTs are a unique class of asset that often falls outside of current regulations. Securities in the United States, like stocks and bonds, for example, fall within the US Securities and Exchange Commission's jurisdiction, but NFTs do not.

However, it is promising to note that several international governments are introducing or, at least, consulting on establishing stronger crypto asset regulation including, the UK, US and Australia. The UK defines a 'crypto asset' as "any cryptographically secured digital representation of value or contractual rights that can be transferred, stored or traded electronically…" which includes NFTs (His Majesty's Government, 2023, p. 13). Meanwhile, Australia has introduced the new Digital

Assets (Market Regulation) Bill 2022 to establish a licensing and reporting framework for digital asset exchanges, custody providers and stablecoin issuers, while the Australian Prudential Regulation Authority (APRA) aims to bring in tighter crypto regulation by 2025 (APRA, 2022). New and emerging technologies bring fresh challenges for legislators and regulators. However, irrespective of any new financial instrument - traditional or virtual - it is vital that regulation keeps current and does not lag behind technological innovation.

References

APRA. (2022), "Crypto-assets: Risk management expectations and policy roadmap", available at: https://www.apra.gov.au/crypto-assets-risk-management-expectations-and-policy-roadmap (accessed 7 March 2023).

Blackstone, T. (2022), "The top 5 NFT scams to avoid", available at: https://www.security.org/news/nft-scams/ (accessed 7 March 2023).

Chainalysis. (2022), "Crime and NFTs: Chainalysis detects significant wash trading and some NFT money laundering in this emerging asset class, available at: https://blog.chainalysis.com/reports/2022-crypto-crime-report-preview-nft-wash-trading-money-laundering (accessed 7 March 2023).

Chandra, Y. (2022), "Non-fungible token-enabled entrepreneurship: A conceptual framework", Journal of Business Venturing Insights, Vol. 18, e00323, https://doi.org/10.1016/j.jbvi.2022.e00323.

Chen, J., Lin, D., and Wu, J. (2022), "Do cryptocurrency exchanges fake trading volumes? An empirical analysis of wash trading based on data mining", *Physica A: Statistical Mechanics and its Applications*, Vol. 586, 126405. https://doi.org/10.1016/j.physa.2021.126405

Cho, J. B., Serneels, S., and Matteson, D. S. (2023), "Non-fungible token transactions: Data and challenges, *Data Science in Science*, Vol. 2, No. 1, 2151950, https://doi.org/10.1080/26941899.2022.2151950

Genç, E. (2021). "Founder of NFT game loses 16 CryptoPunks and 'bunch of ETH' to scammer", available at: https://decrypt.co/77404/founder-of-nft-game-loses-16-cryptopunks-and-bunch-of-eth-to-scammer (accessed 7 March 2023).

Gilmour, P.M. (in press), "Smart contracts and the metaverse", *The Company Lawyer*.

Hayward, A. (2023), “The hottest bitcoin NFTs right now are CryptoPunks clones”, available at: https://decrypt.co/120969/hottest-bitcoin-nfts-right-now-cryptopunks-clones (accessed 7 March 2023).

His Majesty’s Government. (2023), “Future financial services regulatory regime for cryptoassets: Consultation and call for evidence”, available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1133404/TR_Privacy_edits_Future_financial_services_regulatory_regime_for_cryptoassets_vP.pdf (accessed 7 March 2023).

Murray, M. D. (2021), “NFTs and the art world – What's real, and what's not”, *UCLA Entertainment Law Review*, Vol. 29 No. 1, https://doi.org/10.5070/LR829158940

Quiroz-Gutierrez, M. (2022), “A handful of NFT users are making big money off of a stealth scam. Here’s how “wash trading” works”, available at: https://fortune.com/2022/02/04/nft-wash-trade-scam-millions (accessed 7 March 2023).

Rahman, J. and Jin, Y. (2023), "The control of tax corruption: evidence from nonfungible token market in China", Journal of Money Laundering Control, Vol. ahead-of-print No. ahead-of-print. https://doi.org/10.1108/JMLC-01-2023-0005