Are NFTs property?
***Janesh s/o Rajkumar v Unknown Person* (“CHEFPIERRE”) [2022] SGHC 264**

I. Executive Summary

Non-Fungible Tokens (“**NFTs**”) have, in recent times, emerged as highly sought-after collectors’ items.[1] This has resulted in a number of disputes involving NFTs. In particular, a question has arisen over whether NFTs are capable of giving rise to proprietary rights, which could be protected via a proprietary injunction. In *Janesh s/o Rajkumar v Unknown Person* (“CHEFPIERRE”) [2022] SGHC 264, the High Court (“**HC**”) answered this issue in the positive, granting the claimant’s application for a proprietary injunction over the NFT in question. In so doing, the HC acknowledged the law can be applied, in a principled fashion, to cover disputes involving such new technologies.

II. Material Facts

Janesh s/o Rajkumar (“**Janesh**”) was the owner of an NFT from the Bored Ape Yacht Club collection of NFTs, known as Bored Ape Yacht Club (BAYC) ID #2162 (“**Bored Ape NFT**”). He used NFTs as collateral for cryptocurrency lending on the platform NFTfi. He had previously successfully dealt with the defendant on NFTi to borrow cryptocurrencies using his Bored Ape NFT as collateral. Janesh knew the defendant (“**Chefpierre**”) only by the pseudonym “chefpierre.eth”; there were no other immediate means to identify him.

For every transaction in which Janesh used the Bored Ape NFT as collateral, Janesh had consistently specified several terms as part of the loan agreements. In particular, Janesh included a clause which stated that the lender could not utilise the “foreclose” option on NFTfi on the Bored Ape NFT without first granting Janesh reasonable opportunities to make full repayment of the loan. The “foreclose” option allowed Chefpierre to take full possession of the Bored Ape NFT if Janesh failed to make full repayment of the loan.

Despite previous successful dealings with Chefpierre, Janesh’s dealings with Chefpierre in this particular matter fell apart. In that final transaction, Janesh had communicated with Chefpierre that he would require a short extension of time for repayment. In response, Chefpierre agreed to the time extension, but later changed his mind and issued an ultimatum, stating he would exercise the “foreclose” option if the loan was not fully repaid by a specified date. After that date elapsed, Janesh was still unable to find sufficient funds. As such, Chefpierre exercised the “foreclose” option – i.e., a transfer of the Bored Ape NFT to Chefpierre’s cryptocurrency wallet. Janesh then attempted to make partial payment. Chefpierre, however, refused to make any further communication with him. Janesh later discovered that one “chefpierre.eth” had listed the Bored Ape NFT for sale on OpenSea, a marketplace for trading NFTs.

Given the prospect of dissipation and disposal of the Bored Ape NFT, Janesh sued Chefpierre in the General Division of the High Court. Janesha also made an application to court for a proprietary injunction – i.e. an order to prohibit Chefpierre from disposing of the Bored Ape NFT before the suit was heard – and to serve a copy of said injunction on Chefpierre’s social media accounts, namely his Twitter account, Discord account, and the messaging function of Chefpierre’s cryptocurrency wallet address.

---

[1] As the HC noted, “[t]hey are, to draw an analogy, the equivalent of a Rolex Daytona, or a F.P. Journe, to a horology enthusiast. Such is the hype around such NFTs that it is not uncommon to read about them being sold for sums of money that are puzzling to the unconverted. For fans of such NFTs, however, it seems that it is well worth the cost.”

III. Issues

The HC allowed Janesh's application, granting the injunction over the Bored Ape NFT and leave for substituted service. In reaching its decision, the HC considered the following issues:

A. Whether the HC had jurisdiction (i.e. authority) to hear the application;
B. Whether the HC could grant the injunction against an unknown person under the Rules of Court 2021 ("**ROC 2021**");
C. Whether an injunction should be granted in this case; and
D. Whether to allow substituted service.

A. Whether the HC had jurisdiction to hear the application

Notwithstanding the fact that the domicile, residence and present location of Chefpierre was unknown, the HC held that it had the jurisdiction to hear the application. While the HC acknowledged that the decentralised nature of blockchains[2] could pose difficulties when it comes to establishing jurisdiction, there had to be a court which had the jurisdiction to hear the dispute. Based on the available facts, that court was the Singapore court. The reason for this was that Janesh was located in Singapore, and carried on his business there.

B. Whether the HC could grant the injunction against an unknown person under ROC 2021

As the identity of Chefpierre was unknown, the HC had to consider whether it could even grant an injunction.

Under the recently enacted ROC 2021 (which came into effect in January 2021), a defendant would be given notice of a claim against him or her through service of an "originating claim" and/or "originating application". The relevant forms required Chefpierre's name and identification number to be stated – as this information was unknown, this was not done in this case.

However, the HC did not consider this irregularity as amounting to non-compliance under ROC 2021. This was because the relevant forms were not to be interpreted as strict requirements. Where there has been non-compliance with the ROC, the court has the power (Order 3 rule 2(4)) to deal with such non-compliance. Fair access to justice (as stated under Order 3 rule 1(2)(a)) was to be achieved as an ideal in all the orders and directions of ROC 2021. Order 3 rule 1 also made clear that the ROC 2021 was to be interpreted purposively (i.e. in line with the intent of the rules), and one of the purposes of ROC 2021 was to achieve such ideals. With these considerations in mind, the HC found that strict compliance with the formal requirements of the forms could well restrict access to justice, because it was possible to have concluded a contract with someone else online, where both parties had concealed their true identities using pseudonyms. Therefore, Janesh should not be barred from bringing a claim on the grounds that he was unable to name the person identified through the pseudonym "Chefpierre".

This, however, did not mean that the formality requirements could be entirely dispensed with, as that would make a mockery of the Rules. Instead, the description of the party whose identity is in dispute must be sufficiently certain so as to identify both those who are included and those who are not in that description. In the present case, "Chefpierre" was identified as the user behind the account "chefpierre.eth" on Twitter and Discord, and was the person whom the

[2] Blockchains are decentralised because they operate on a dispersed network throughout various jurisdictions, rather than in a single jurisdiction such as Singapore.

Bored Ape NFT was transferred to. The HC was satisfied that this description had, with sufficient certainty, identified the party in question.

C. Whether an injunction should be granted in this case

Two requirements must be met for an injunction to be granted:

(i) There is a serious question to be tried; and
(ii) The balance of convenience lies in favour of granting the injunction.

(i) <u>Serious question to be tried</u>

The HC noted that Janesh had to show that he had a "seriously arguable" case that he had a proprietary interest (i.e. ownership) in the Bored Ape NFT. This required establishing that: that the Bored Ape NFT, or NFTs in general, were capable of giving rise to *proprietary rights* which could be protected via a proprietary injunction; and it was *seriously arguable* that the claimant had a proprietary interest in the Bored Ape NFT (bearing in mind that the court does not consider complex questions of fact or law at this stage in the proceedings).

Proprietary rights

The following is an example of the process by which an NFT is created. An image file is first created through a string of code which instructs a computer to generate an image. The file can be in various formats such as JPG, PNG, GIF, MP4, etc. It is common to store only the metadata of the image on the blockchain because storing the entire image on the blockchain is costly. The metadata contains information about the image file such as the author, file creation date, file size. Once this metadata file is produced, it is then "hashed" (i.e. an algorithm is used to produce an output (or string of digits) of a fixed length). The hash serves to identify the original data in the image – any changes to the original image will result in a different hash value. The NFT itself is created by a further piece of code (or "smart contract"), which creates a new token in the owner's crypto wallet. This token can be transferred to another crypto wallet (e.g. a buyer who pays the owner for it). Based on the above explanation, in most cases and certainly in the present case all an NFT contains is a link to the server where the *actual* image itself can be found.

From this, it could be argued that all that is acquired when one "buys" an NFT is merely information. If, however, NFTs are characterised as information, there would be serious objections towards granting it property status. The HC highlighted that information has a poor fit with conventional concepts of ownership, title and transfer because of its "fluidity and variability in function and conception". For example, while the free-flow of information is generally important, certain forms of information such as personal data may warrant special treatment in terms of legal rights and control.

However, the HC noted that where crypto assets (i.e. cryptocurrencies, tokens and NFTs) are concerned, it may not be entirely appropriate to characterise them as information. NFTs, when distilled to the base technology, are not just mere information, but rather data encoded in a certain manner and securely stored on the blockchain ledger. Characterising NFTs as mere information would ignore the unique relationship between the encoded data and the blockchain system, which enables the transfer of this encoded data from one user to another in a secure, and verifiable fashion. Indeed, there has been growing judicial support for the idea that cryptocurrency could instead be a form of property, and for "deploying property concepts to protect digital assets".

The HC first noted that the real objection to treating NFTs as property depends on the functions for which it is used, rather than the plain fact that it is information. The older notion of "information" was used in the context of the knowledge that such information *informs* the reader. In the context of NFTs, however, the information concerned is a string of computer code (at its essence, zeros and ones) that does not provide any knowledge to those who have read it. It provides instructions to the computer under a system whereby the "owner" of the NFT has exclusive control over its transfer from his wallet to any other wallet.

The HC then noted that a basis for treating NFTs as property (even though this basis was not argued before the court) was through considering cryptocurrencies (and NFTs) as a *chose in action*. A chose (or thing) in action referred to personal rights of property which can be enforced by legal action. This is in comparison to a *chose in possession*, which traditionally refers to tangible personal property that can be physically possessed by an owner. While cryptocurrencies did not fall neatly into either category, it has been argued that they can still be considered a form of property.

For instance, in the English case of *A v Persons Unknown who demanded bitcoin on 10th 27 and 11th October 2019 and ors* [2019] EWHC 3556 (Comm), that court concluded that while a crypto asset might not be a chose in action based on a narrow definition of that term, it could still be considered property. As such, that court held that crypto assets such as Bitcoin were property, given that they met the four criteria for choses in action as set out in *National Provincial Bank Ltd v Ainsworth* [1965] AC 1175 ("***Ainsworth***") – namely that it must be "definable, identifiable by third parties, capable in its nature of assumption by third parties, and have some degree of permanence or stability". The HC further observed that the trend of the law has been to apply the *Ainsworth* criteria in deciding whether crypto assets are property,[3] so long as they met those four criteria (also known as the *Ainsworth* criteria):

- be definable (be capable of being isolated from other assets whether of the same type or of other types and thereby identified);
- be identifiable by third parties (have an owner being capable of being recognised as such by third parties);
- be capable in its nature of assumption by third parties (this involves two aspects: third parties must respect the rights of the owner in that asset, and the asset must be potentially desirable); and
- have some degree of permanence or stability.

Applying the *Ainsworth* criteria, the HC found that NFTs also satisfied the four stated criteria. *First*, NFTs were definable because the metadata of an NFT distinguished one NFT from another. *Second*, NFTs had owners capable of being recognised by third parties. Where NFTs are concerned, the presumptive owner would be whoever controls the wallet which is linked to the NFT. Similar to cryptocurrencies, excludability is achieved because one cannot deal with the NFT without the owner's private key. *Third*, NFTs ensured third parties respect the rights of the owner of NFTs, and NFTs are potentially desirable. This is because the nature of the blockchain technology gives the owner exclusive ability to transfer NFTs to third parties through transfer of the private key. Further, NFTs were clearly the subject of active trading in the markets. *Fourth*, NFTs possess some degree of permanence or stability because the NFT

[3] For instance, in the earlier case of *CLM v CLN* [2022] SGHC 46 ("*CLM*"), the HC had dealt with the question of whether stolen cryptocurrency assets, specifically Bitcoin and Ethereum, could be the subject of a proprietary injunction. Based on the analysis in *Ruscoe v Cryptopia Ltd (in liq)* [2020] 2 NZLR 809, the HC held that the *CLM* claimant was able to prove a serious arguable case that the stolen cryptocurrency assets were capable of giving rise to proprietary rights, which could be protected via a proprietary injunction.

concerned had as much permanence and stability as money in bank accounts which exist in electronic form.

(ii) Balance of convenience

The HC held that the balance of convenience lay in favour of granting the injunction, because the string of code that represented Bored Ape NFT on the blockchain was unique and irreplaceable. If transferred to third parties, Janesh might never be able to recover it, and any proprietary remedy ordered by the court in relation to the Bored Ape NFT would be "writ in water".

As both conditions were satisfied, the HC granted the proprietary injunction. The HC, however, stressed that this case concerned an interlocutory application (i.e. a pre-trial proceeding), and so should be read in the proper context. In particular, the present case was an urgent *ex parte* hearing, where the HC only had the benefit of submissions from the claimant Janesh. A different conclusion could well be reached during a full trial, with the benefit of fuller submissions from both parties.

The HC further noted that given that Janesh had also pleaded that ChefPierre was also liable for breach of contract and the tort of conversion, it could have applied for the injunction on other grounds. For instance, in a prior case which involved the enforcement of a "straightforward term as to when the employee in question should be permitted to tender his resignation", while the balance of convenience did not clearly weigh in either party's favour, in granting the injunction, the court took the view that the defendants should not be permitted to disregard the contract they had signed.

D. Whether to allow substituted service

The HC noted that having found that the Singapore court was the appropriate court to hear this action, it would have granted leave for service out of jurisdiction under Order 8 rule 1 of the ROC. Janesh, however, applied for substituted service out of jurisdiction owing to the unique circumstances of the case, i.e. that ChefPierre could only be contacted through his social media accounts.

Specifically, Janesh applied to the court for permission to serve on Chefpierre a copy of the originating claim and statement of claim, and a copy of the summons for injunction and any order made, by the following means: Chefpierre's Twitter and Discord accounts, and the messaging function of Chefpierre's cryptocurrency wallet address.

The HC addressed whether this was allowed under ROC 2021. Under the previous Rules of Court, substituted service was allowed where it was impracticable for court documents to be served on a person. Substituted service would be effected by taking such steps as court directed, to bring the document to the notice of the person to be served. However, there appeared to be no equivalent provision in the ROC 2021 allowing for substituted service out of Singapore.

Nevertheless, the HC noted that the Order 8 rule 2(1) of the ROC 2021, which prescribed the methods of service out of Singapore, prescribed a "non-exhaustive list" as to how service *may* be effected out of Singapore. Further, it was clear that the drafters of ROC 2021 (in the Civil Justice Commission Report (29 December 2017), Chapter 6: Service out of Singapore) had not intended ROC 2021 to drastically change the regime relating to jurisdiction in general, and the service of originating processes or other court documents out of Singapore. The court observed that the rule for service out of jurisdiction was one of considerable vintage, and that if the intention was that the court did not have the power to allow service out of jurisdiction, there would have been clear language to that effect. Rather, the intention of Order 8 rule 2(1) of ROC 2021 was rather to simplify things, for example, by obviating the need for a claimant to scrutinise a list of cases in which service out of Singapore is permissible.

Therefore, the HC granted leave for substituted service out of jurisdiction. It held that to find otherwise would be to deprive Janesh of the only practical manner of effecting service on the Chefpierre.

Written by: Kern Lee, 2nd-Year LLB student, Singapore Management University Yong Pung How School of Law.
Edited by: Ong Ee Ing, Senior Lecturer, Singapore Management University Yong Pung How School of Law.