his sister, it is no longer in that position. Patel's assertion may well be arguable, but it is difficult to see how it could succeed.

It is often said that equity is difficult, demanding law, yet here it might be hoped that equitable compensation is both less difficult and more demanding than it would otherwise seem.

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"BIT-PROPERTY"

AA v Persons Unknown [2020] 4 W.L.R. 35 is the first English judgment that explicitly and at length recognises bitcoins as property. Bitcoin is a virtual or cryptocurrency launched in 2009 that enables the peer-to-peer exchange of electronic "coins". These bitcoins are data that contain the bitcoin's transactional history, but are rivalrous because each bitcoin, individually or partially, may be associated with a single "digital wallet". This association occurs via a decentralised, digital public ledger known as the Blockchain and in this respect bitcoin is different from traditional or "fiat" currency because these "coins" are transferred from user to user without mediation by a trusted third party. The Blockchain, in essence, by verifying transactions and ensuring problems of fraudulent double-spending are overcome substitutes cryptographic proof for trust. While bitcoin and other cryptocurrencies eliminate the need for mediation by financial institutions, a growing number of cryptocurrency exchange platforms have emerged, where users may "store" their digital wallets, and are like broker-dealers which enable users to trade in different cryptocurrencies and to convert cryptocurrencies into fiat currencies. Although its users treat cryptocurrencies such as bitcoin as a valuable commodity and bitcoins as a medium of exchange, it is a one of a series of disruptive technologies, which fall outside established categories at common law.

In his classic statement in *Colonial Bank v Whinney* (1885) 30 Ch.D. 261, 285, Fry L.J. divided personal property into neat boxes of *choses* in possession and *choses* in action. However, so-called "cryptoassets", such as bitcoins, can neither be possessed because they are intangible, nor, like a debt, can they be enforced against a specific individual. Instead, bitcoins might be described as "intangible assets" which are definable, possess economic value and which may be traded. However, while intangible they are not a right against which another person owes a correlating duty. Therefore, cryptoassets fall outside the dichotomy in *Whinney*. Yet, in recent years, there has been a growing recognition that since bitcoin's users treat bitcoins as having economic value and as transferrable, the law should classify bitcoins as property. This is meant also to guard against fraud. (e.g. Sir Geoffrey Vos, "Cryptoassets as Property: How Can English

Law Boost the Confidence of Would-Be Parties to Smart Legal Contracts?", 2 May 2019, Liverpool). Recently, the UK Jurisdictional Taskforce ("the Taskforce") has given a non-binding opinion in which it stated that the common law should facilitate parties' reasonable expectations by treating cryptocurrencies as property (UK Jurisdictional Taskforce, "Legal statement on Cryptoassets and Smart Contracts", November 2019). In *AA v Persons Unknown*, Bryan J. built on the Taskforce's report by "adopting" its findings.

The dispute in *AA* arose because the first defendant ("the hacker") had allegedly circumvented the firewall of a Canadian insurer and infected its computer systems with malware. The hacker sent its customers ransom notes, which the relevant customer duly paid in 109.25 bitcoins (US $950,000) in return for access to a "decryption tool". The customer was insured with the plaintiff against cyber-crime attacks. The plaintiff, through the assistance of an intermediary, traced the bitcoins to the Bitfinex exchange, the third and fourth defendants, where it was argued the unknown second defendant was said to hold or control 96 of the relevant bitcoins. Although the plaintiff could not ascertain the name of the second defendant, it was likely that Bitfinex could do so. While the plaintiff's claim for interim relief was wide-reaching, it essentially narrowed to two submissions. First, the plaintiff argued that Bitfinex as constructive trustees held the bitcoins on trust for the plaintiff or, alternatively, the plaintiff had a claim against all four defendants in proprietary restitution. The submission naturally required clarifying whether bitcoins constituted property. Second, because of the risk of imminent dissipation, the plaintiff sought that the hearing should be heard in private under a cloak of anonymity and without notice.

Bryan J., first, noted that private hearings are the exception to the constitutional principle of "open justice" citing Lady Hale in *Cape Intermediate Holdings Ltd. v Dring* [2019] UKSC 38. Rule 39 of the Civil Procedure Rules (CPR) underlines the principle of "open justice" but defines the circumstances in which a dispute may be held in private. A private hearing must not only be justified under one or several of the exceptions set out in CPR 39, but must also be proportionate in all the circumstances. These procedural rules, additionally, must be compatible with the Human Rights Act, 1998. A judge must in effect engage in a balancing exercise to determine where the interests of justice lie. Bryan J. having considered the various interests at stake, including notably the importance of safeguarding freedom of expression, stated that the balance lay in a private hearing. He stated, in particular, that when the central claim is one of blackmail and where there is a risk that "publicity would defeat the object of the hearing" a private hearing is justified under CPR 39. This is particularly the case where there is a risk that publicity would result in the dissipation of the bitcoins, revenge or copycat attacks, and where publicity would likely result in the disclosure of confidential information about the insurer's

processes and the insured customer's systems where the vulnerability of these systems was the "basis for the blackmail itself". Indeed, following *LJY v Persons Unknown* [2018] E.M.L.R. 19 blackmail is considered the "misuse of freedom of expression" such as to weigh the balance of interests between freedom of expression and the administration of justice in favour of arguments for the latter. Therefore, Bryan J. held that a private hearing was proportionate in the circumstances.

Having affirmed that the hearing should be held in private, without the first and second defendant being placed on notice, Bryan J. second addressed the important question of the basis for granting a proprietary injunction. The learned judge did not shirk the fundamental issue, namely whether bitcoins are "property at all". Bryan J. stated that on a "narrow" view of Fry L.J.'s dicta in *Colonial Bank v Whinney* bitcoins cannot be viewed as property. However, drawing on the Taskforce's opinion, he distinguished *Colonial Bank v Whinney* as confined to its facts and not a general proposition about the scope of property law. Instead, the Taskforce opined that cryptoassets are capable of being classified as a *chose* in action if it is understood as a residual category, a "catch-all" to refer to any property that is not a thing in possession *or*, more forcefully, fall within an emerging third category of "intangible property". Bryan J. stated that "for the reasons identified in [the Taskforce's] legal statement", which he considered represented "an accurate statement as to the position under English law", bitcoins constituted "intangible property". More precisely, he stated that it was "fallacious" to divide personal property exclusively into *choses* in possession and *choses* in action. Additionally, their claim to property status was supported *B2C2 Ltd. v Quoine Pte Ltd.* [2019] SGHC(I) 03 in which the Singapore International Commercial Court held that bitcoins came within Lord Wilberforce's broad definition of property in *National Provincial Bank v Ainsworth* [1965] 1 A.C. 1175, as "definable, identifiable by third parties, capable in their nature of assumption by third parties, and having some degree of permanence". Bryan J. went on to consider the law applicable to proprietary injunctions, granting an interim injunction on orthodox principles.

While an interim judgment, with certain important matters remaining unresolved, *AA v Persons Unknown* is significant. First, building on judgments such as *Dairy Swift v Dairywise Farms Ltd.* [2000] 1 All E.R. 320 and *Armstrong v Winnington* [2012] EWHC 10 (Ch), it shows the judiciary's increasing willingness to adapt procedural and substantive law to facilitate and regulate new markets in intangibles. Those cases were decided by interpreting statutory definitions of property that included references to "intangible property" or cognates. (See also, Morritt L.J. in *In re Celtic Extraction Ltd.* [2001] Ch. 475). However, in *Armstrong*, the Court noted that even in the absence of a broad statutory definition the common law is capable of recognising other intangible property on, it would seem, a broad view of the *chose* in action. *AA v Persons Unknown* continues in

this vein insofar as it extends the scope of protection of property law to bitcoins without reference to statute. Second, like in *Armstrong* and following the Taskforce's Opinion, Bryan J. recognises that the important legal question is an analytical one, namely, whether bitcoins are sufficiently excludable and transferable to form the basis of a property right; however, given that the real controversy surrounding recognising new forms of "intangible property" flow from defining the nature and scope of attendant remedies, it is hoped that in the event of a full hearing the normative justification for, and legal consequences of, classifying cryptoassets as property is developed. In other words, the Taskforce's laconic reference to reasonable expectations is not, it is submitted, a sufficient justification. Nevertheless, the important conceptual step taken should not be overlooked. Bryan J. did not attempt to fit bitcoins into a broad understanding of *choses* in action, which would have been a plausible interpretation of the Taskforce's Opinion and *Armstrong*. Instead, Bryan J. stated that dividing all personal property into *choses* in possession and *choses* in action is "fallacious". It is argued that Bryan J.'s recognition of a third and distinct category of intangible personal property, uncoupled from a background statutory framework, enables courts to think clearly about new forms of intangible assets and also avoid the pitfalls of "fiction piled upon fiction" (see *OBG v Allan* [2008] 1 A.C. 1, per Lord Nicholls). *AA v Persons Unknown* ultimately shows the remarkable flexibility of the common law in an age of virtual currencies and digital assets.

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THE DIGITAL EXHAUSTION OF COPYRIGHT

IN its Judgment of 19 December 2019 in *Tom Kabinet*, C-263/18, EU:C:2019:1111, the CJEU ruled that the supply to the public by downloading, for permanent use, of an e-book is not covered by the concept of "distribution to the public" (Art. 4(1), Directive 2001/29/EC, OJ 2001 L 167 p.1 ("InfoSoc Directive")), but by that of "communication to the public" (Art. 3(1), InfoSoc Directive). This is significant, as the Directive is explicit that, while the copyright owner's distribution right is exhausted with respect of a copy of the work by the first transfer of ownership of that copy with the right-holder's consent, so that the purchaser is free to resell it (Art. 4(2), InfoSoc Directive), the right of communication to the public is not subject to exhaustion (Art. 3(3), InfoSoc Directive). While the decision has been treated almost universally as portending an end to

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