

## KEY POINTS

- *The Satanita* [1897] AC 59 laid the foundation for efficient and easy amendments to hundreds and thousands of ISDA master trading agreements and should continue to play a role in shaping development and innovation in contracting through smart contracts.
- The posting of the on-chain smart contract on the blockchain acts as an offer.
- Acceptance can be by performance, for example by transferring control of a digital asset to the smart contract (including a digital representation of an offline asset).

## Spotlight

Authors Akber Datoo and Jeffrey Golden

# "Sailing into the rules of smart contracts..."

In this Spotlight article, the authors consider the significance of Lord Justice Lopes' judgment in *The Satanita* [1897] AC 59 to shaping development and innovation in contracting through smart contracts.

"In my opinion, directly any owner who entered his yacht to sail, this contract arose."

In 1897, when Lord Justice Lopes made his concurring judgement in *The Satanita* [1897] AC 59, it is highly unlikely that even someone of his legal stature could have conceived the subsequent significance that a legal principle framed by reference to a yacht race would have a hundred and one years later. But in 1998, ISDA released and invited adherence to its first protocol: a multilateral contractual amendment mechanism used to address changes to ISDA's standard contracts. How are these seemingly unrelated areas of activity related as a matter of legal theory? And what further influence might *The Satanita* have in shaping development and innovation in contracting – an ability to connect a record of contractual obligations with the (automated) performance of those obligations themselves – through smart contracts?

To answer these questions, we should first look at the 19th century case itself.

*The Satanita* was a yacht competing in the Mudhook Yacht Club's Regatta, a fifty-mile race. Each competitor had knowledge that, by entering that race, they would be bound by the sailing rules of the Yacht Racing Association.

Rule 18 stated:

"When two yachts are approaching one another, so as to involve a risk of collision, one of them shall keep out of the way of the other."

And Rule 32 stated:

"Any yacht disobeying or infringing any of these rules, which shall apply to all yachts ... and her owner shall be liable for all damages arising therefrom ..."

Through no fault of the claimant, *The Satanita* collided into the claimant's yacht, sinking it, and injuring a crew member. In doing so, the owner had infringed Rule 18 of the Yacht Racing Association and by virtue of Rule 32 was liable for "all damages arising" resulting from their infringement. But the owner of *The Satanita* had signed a document only with the managing committee of the race, not with any other yacht owner. The Court of Appeal held that nevertheless a contract existed between and among the owners of the competing yachts by which the owner of *The Satanita* became liable for all damages arising from the collision. It did so on the basis that all competing yacht owners had knowledge that the race was then under these rules and therefore deliberately entered the race upon those terms.

## THE SATANITA AND ISDA PROTOCOLS

That is the significance of the ruling in *The Satanita*. Each competitor that entered into the race contracted to be bound by the Yacht Racing Association's rules. Crucially, it was held that each competitor was also contracting to be bound by the same set of rules with all other competitors that had entered into the race. This was the case even though the competitors did not necessarily know each other or even each other's identity. In a similar way, each party that adheres to an ISDA protocol agrees to be bound by the contractual terms of that protocol with, and to the extent of, any other adhering party that similarly agrees. Each party that adheres to a protocol makes an offer to, and accepts the offer of, the other parties adhering to that protocol: to be so bound, without the need for all

parties to know, or directly contract with, each other (ignoring some of the protocols where parties need to bilaterally exchange information, such as the ISDA 2016 Variation Margin Protocol).

The idea that parties can contract to a set of rules without needing to know at the time of adherence the identity of the other parties, who are also bound by them, has been fundamental to the rollout of various ISDA Protocols. These protocols have assisted with the mass changes required by an industry in response to either market or regulatory events, such as the introduction of the Euro through the 1998 ISDA EMU Protocol, or most recently, the cessation of LIBOR through the ISDA IBOR 2020 Fallbacks Protocol. Bilateral negotiations take time, even if it is the process of reaching out and signing formalities with each and every one of your counterparties. Using a protocol mechanism, parties can easily amend an entire portfolio of agreements with all its counterparties through the execution of one simple adherence letter. Bearing in mind that the master trading and collateral agreement portfolios of the large investment banks can run into the tens of thousands in number – this is no mean feat! Of course, in practice, there remains a need to ensure one tracks the updated terms and manages the performance against the updated contractual obligations resulting from the adherence to the protocol.

## THE SATANITA AND SMART CONTRACTS

There is no reason to think that *The Satanita's* contribution to 19th Century jurisprudence is without relevance also to the mechanisms of cutting edge LegalTech and the digital world through smart contracts. Although there are a plethora of published definitions of a smart contract (which certainly makes its legal analysis somewhat precarious without care in this regard), the LawTech Delivery Panel

# Spotlight

## Biog box

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'Legal Statement on Cryptoassets and Smart Contracts' November 2019 defines smart contracts by the characteristic that makes them distinctive: *automaticity*. Some, or all, of the contractual obligations are performed automatically, without the need for human intervention.

In respect of smart contracting, the typical steps to "making an offer" are set out as a user typing out the code of a smart contract after, if not already completed, downloading and synchronising with the relevant distributed ledger, eg Ethereum, and "becoming part of the network". The user proposes a specific contract by making it available in the system, with the contract having its own unique identification number. It then functions as an autonomous entity within the system.

The fact that parties submit their cryptographic private keys to commit resources to a distributed ledger technology based contract provides proof of commitment to offer (and accept) in this way – it is the way that they "sail into the rules". On platforms such as Ethereum one party must post its (on-chain) smart contract on the blockchain, and it is then accepted by the cryptographic key of the other party. The posting of the on-chain smart contract on the blockchain acts as an offer.

Some have argued that the smart contracting process is not different from an advertisement, and therefore only an invitation to treat. However, as the offeror posts his contract on a distributed ledger in assembly code that specifies the precise terms of the performance steps of a contract, it will most likely be held exact enough to constitute an offer and not only an invitation to treat (and certainly, more so than a traditional contract equivalent).

Once a proposed smart contract is posted on a distributed ledger and fulfils the "offer" requirements it is capable of acceptance by the offeree. This acceptance can be by performance, for example by transferring control of a digital asset to the smart contract (including a digital representation of an offline asset). The action of uploading assets to the smart contract should provide an unequivocal

communication of acceptance – again, sailing into the wind of the rules of the game.

The contracting parties to a smart contract are, at a technical level, not individuals but cryptographic private keys which in most current circumstances will represent individual persons. As for autonomous smart contracts, the facts will typically present themselves as that private keys do not act by themselves, rather they are instructed by humans.

In permission-less distributed ledger systems, there is no need for users to disclose their identities in order to engage in transactions. For example, on the Ethereum blockchain, each user account will have a public address (like an email address). Here, the user can initiate transactions using their private key. Although the public address linked to a particular transaction is known, the user's identity linked to that public address is not (the transactions entered into by a user are recorded on the public distributed ledger, which means that analysis of these transactions might allow a user to be identified: strictly speaking this is defined as pseudo-anonymity, rather than anonymity).

*The Satanita* usefully again sails to the rescue, providing precedent for offer and acceptance occurring by operation rather than a bilateral exchange with clear knowledge of identities of all parties.

## CONCLUSION

The lasting relevance of *The Satanita*, concerning the collision of two English yachts more than a century ago, is remarkable. It has laid the foundation for efficient and easy amendments to hundreds and thousands of master trading agreements. But the race is not yet over – and given the interesting commercial and legal considerations smart contracts are bringing as we seek to digitalise contracts, although Lord Justice Lopes will never know who Nick Szabo or Ethereum are, his and his fellow judges' ruling 124 years ago has been an influence, and should continue to play a crucial role, in our thinking about the future of contracting. ■

## Further Reading:

- Smart contracts: can they be aligned with traditional principles or are bespoke norms necessary? (2018) 8 JIBFL 479.
- The Legal Statement on Cryptoassets and Smart Contracts: an extremely useful baseline from which to further develop the law and regulation (2020) 3 JIBFL 147.
- LexisPSL: Banking & Finance: Is a smart contract enforceable where it has been executed automatically?

## Biog box

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