New York Law Journal
SERVING THE BENCH AND BAR SINCE 1888
WWW.NYLJ.COM
An ALM Publication
FRIDAY, OCTOBER 4, 2019

Neutrals Need to "Speak Tech" to Resolve Disputes Involving Smart Contracts

BY DANIEL B. GARRIE, ESQ.

Blockchain technology is on the rise. Whether in currency, supply chain, real estate, energy or even democracy, blockchains will soon permeate most business and consumer transactions. For every action, however, there is an equal and opposite reaction. In the legal community, the arrival and increasing saturation of this new technology will result in an onslaught of new conflicts and litigation. It is a matter of when, not if, blockchain-related disputes will begin to heavily populate the ADR dockets. Will neutrals be ready to handle these cases?

According to the *Harvard Business Review*, "blockchain is an open, distributed ledger that can record transactions between two parties efficiently and in a verifiable and permanent way." (Iansiti, M., & Lakhani, K. R. (2017). The truth about blockchain. Harvard Business Review, 95(1), 118-127.) Smart contracts are computer programs executed by a network of mutually distrusting nodes, without the arbitration of a trusted authority.

To illustrate how smart contracts work, consider a simple transaction between a buyer and a seller for 100 red widgets. Traditionally, the parties would execute a paper agreement reading, in part, "Seller shall deliver to buyer one hundred (100) red widgets." A smart contract for the same transaction, written in Solidity, a language of Ethereum blockchain, would read as follows:

function transferFrom(address _SELLER, address _BUYER, uint256 _100) public returns (bool success) require(_100 <= allowance[_SELLER] [msg.sender]); allowance[_SELLER][msg.sender] -= _100; _transfer(_SELLER, _BUYER, _100); return true;

In the above, the parties input their contact information and the basic terms into the smart contract software, and the smart contract automatically populates the appropriate fields with these party-defined variables. Advantages of smart contracts include increased transparency, irrevocability, speed and efficiency. Although smart contracts can greatly improve efficiency, they also give rise to a new breed of challenges, especially when something goes awry.

Smart contract disputes can be particularly difficult to arbitrate for those who do not understand coding. When resolving conflicts between parties to a traditional written contract, the historical first step is applying the plain language of the agreement as written. With smart contracts, however, code has usurped the role of plain language, which can complicate matters. If

Daniel B. Garrie, Esq., *is a neutral with JAMS, where he serves as an e-discovery special master, forensic neutral and arbitrator with a focus on complex software and business litigation, privacy and data breach matters, trade secret theft and copyright and patent litigation disputes.*

there are any issues with a smart contract transaction, the neutral will need to understand and interpret both the underlying computer code and the effect of its self-executing nature in order to come to an appropriate resolution. For example, in one situation, a mistyped variable caused a payment to be sent to the wrong vendor. A week passed before anyone noticed, resulting in several million dollars being paid to the wrong vendor. In this situation, the third-party recipient (1) did not spend the money and (2) did the honorable thing and refunded the payment. Of course, this situation easily could have taken a different course, with the parties spending millions of dollars in legal fees to remedy the typo. Thus, even a run-of-the-mill contract dispute involving a smart contract transaction will involve a lot of technical baggage that a neutral must be able to unpack. In summary, a neutral must be able to "speak tech"; i.e., understand computer code, learn what the parties intended with their inputs and appropriately apply the law.

Smart contracts are just one example of how blockchain technology can be used. Blockchain technology, and by extension blockchain technology law, is constantly evolving and difficult for non-experts to understand. Effectively mediating and arbitrating a blockchain technology dispute requires a neutral to understand not just the law, but the math, coding, programming and computer engineering concepts that underpin blockchain technology. Further, he or she must also recognize how these technologies impact, influence and intersect with various business models.

A neutral's job is to drive the dialogue and ask the probing questions that will ultimately lead to a solution. The quality of such a dialogue and the effectiveness of his or her questions will largely depend on the depth of the neutral's understanding of the underlying area of law and technology. While a superficial comprehension of blockchain technology is better than no understanding, learning only the basics is not enough to provide the parties with the expert-level solution they are seeking. Parties appearing before a neutral expect the neutral to be an expert who has at least the same understanding of the issues as the parties themselves. In order to reap the benefits and efficiencies of ADR processes, it is imperative that the parties remain confident. In blockchain technology disputes, it is nearly impossible for a neutral to drive toward an efficient agreement without having a mastery of the underlying technologies from legal, technical and business perspectives.

While the technological perspective may be daunting to neutrals without a computer science background, those who embrace the challenge will be uniquely poised to resolve blockchain disputes. The key to success, however, is to approach software coding as one would approach learning a foreign language. Patience and practice are key. Learning to read, write and interpret code, like learning to read, write and interpret another language, entails more than merely memorizing terms and can take years. Mastering any language requires active participation and regular practice, both in receiving input and generating output. While lawyers are often comfortable reading pages and pages of text on technology, they may shy away from actively coding. Even knowing how to code the most basic software can go a long way toward breaking down barriers and becoming comfortable with the languages used to create smart contracts and other emerging instruments.

Blockchain technology soon will become the new normal in consumer and business transactions. The law, and those who facilitate its interpretation and application, must be ready to adapt if ADR is to continue to solve legal disputes.