

Smart Contract Panel Opening Comments

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This is the second panel of the conference addressing smart contracts. The first panel focused on establishing what a smart contract is – in this panel we are going to look at the question of how smart contracts may affect the practice of law and dispute resolution. Specifically, my colleagues Derric and Alexander will be asking whether smart contracts pose a threat or offer an opportunity related to the practice of arbitration, but to start us off, I'm going to set the stage by looking at smart contracts and their impact more generally.

First, again, a short definition to get us all on the same page. Smart contracts, for the purposes of this discussion, are simply self-executing contracts, with terms of agreement written into lines of code, existing across a decentralized, distributed blockchain network. Theoretically, they can exist with no central authority, no prevailing legal system or venue and no external enforcement mechanism.

Smart contracts have been referred to as a 'transparent, conflict-free' means of exchange. And, relative to their relationship to traditional legal systems, a post on Blockgeeks was entitled, 'Smart Contracts: The Blockchain Technology That Will Replace Lawyers'.¹

Let's first think about the 'conflict-free' concept. I suppose that alludes to the automatic nature of the execution of contract terms, but let me be clear about this: the notion that the relationships created through smart contracts will be conflict-free is a fantasy. To paraphrase a Biblical saying, wherever there are two or more gathered together, virtually or actually, there will be conflict.

I won't even try to catalogue all of the things that can go wrong with smart contracts – I'll just mention a couple of examples of potential areas of conflict where there may be institutional or organizational ways to prepare for disputes involving the contracts themselves or the execution of the contracts.

To begin, the code is only as good as the people who write it. There will be code errors and unanticipated actions, so that the 'perfect' self-executing contracts will self-execute in a way that is surprising, and perhaps advantageous to one or another party. These kinds of problems, and the disputes they generate, will be somewhat more interesting than disputes arising in the traditional contracting process. Not to belabour the issue, when there are code bugs in a smart contract, there are no easy ways to 'fix' the bugs. The entire system is designed to make it very difficult to intervene and change the terms of the contract once they have been embedded in code and memorialized in the blockchain network. As smart contracts become more common, I think the same pattern that coding has seen generally will emerge. Standard contract elements will be developed (per-

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1 'Smart Contracts: The Blockchain Technology That Will Replace Lawyers', Blockgeeks.com. Available at: <https://blockgeeks.com/guides/smart-contracts/>.

haps in DAPPs – distributed apps) that can be pasted into code to perform functions that are common and repetitive, and these will be integrated into a unique code to make a full contract. There are obvious problems lurking in this process.

Given this, there are some interesting questions related to the handling of disputes in the smart contract world. Let me offer some quick observations about these issues.

The first issue could be, who creates the code and/or decides what the code should do? This question relates to the standards discussion on a panel at this conference. If the use of smart contracts is decentralized, lacking a central authority and lacking what in the ‘real’ world is known as standing in a venue, how do we establish trust in the creators of the code? It is undoubtedly the case that not every individual who uses a smart contract will be able to create, or even understand, the code. If you draft a contract in the non-virtual world, you generally have to have been admitted to a bar somewhere. The only bar you have to be admitted to in order to create smart contracts serves pints of beer.

What happens when conflict occurs? Even in the non-virtual world, it is increasingly the case that disputes about performance under contracts are happening across venues and borders and are not as straightforward as they were in a pre-Internet age. In the virtual world of smart contracts, it will be even more ‘interesting’, and it is unclear how disputes could be effectively and efficiently handled, or how disputes would be resolved in a way that is enforceable.

What will dispute resolution systems for smart contracts look like, and who are the trusted third or fourth parties who can handle the disputes? In the non-virtual world, there are licensed counsellors operating within a set of rules and standards, and mediators and facilitators who have at least some set of loosely shared ethical standards. Who will have the standing and expertise to intervene in disputes involving smart contracts?

Another interesting source of potential conflict arose recently with the publication of a study indicating that there was probably currency manipulation of the value of Bitcoin by a group using another cryptocurrency to artificially inflate the value of Bitcoin.² The cryptocurrency used to bolster Bitcoin was pegged in value to the dollar, and Bitcoin, as we all should know, is given value primarily by the willingness of its owners to accept a certain valuation. I could go on about this, but the short-term issue related to conflict and smart contracts is that many executable elements of smart contracts will be based on currencies that are volatile, and may not return the value that is expected on the creation of the contract.

So, from my semi-pessimistic view, there are some conflict resolution issues to be worked out in the world of smart contracts. Let’s hold that thought for a moment and consider the ‘replace the lawyers’ assumption.

What functions do lawyers currently serve in the contracting process? We could create a comprehensive list, but to think simply, counsel advise on contract terms, ensure that the terms are, in fact, enforceable, suggest language that pro-

2 N. Popper, ‘Bitcoin Price was Artificially Inflated, Fueling Skyrocketing Value, Researchers Say’, *The New York Times*, 13 June 2018. Available at: www.nytimes.com/2018/06/13/technology/bitcoin-price-manipulation.html.

tects clients, and in the case of disputes, they represent clients in litigation or in mediation. And, sometimes they step out of the counsel role and serve as third parties in mediation, arbitration or other third-party roles. In other words, lawyers and mediators are the trusted actors who handle issues related to the creation of, execution of, and enforcement of, contracts.

Henry Ford once said that if he had asked his customers what they wanted, they would have said they wanted a faster horse. The model T was not just a faster horse, and smart contracts held in a blockchain are not just a metaphorical faster horse. Traditional legal and dispute resolution professionals who try to apply their well-learned methods and standards to the creation and management of smart contracts will be left in the dust. But, those who look at the issues created by smart contracts and other distributed agreements and interactions, develop ways to add value to the process and position themselves as trusted third parties should prosper.

Simply put, looking from the outside, it seems to me that the essential elements of advice and counsel I've described will be carried out in a very different environment, but they will still be needed. I would make the argument here that I've made in other venues regarding the relationship of technology to the justice system: The practice of law and dispute resolution will look very different in the world of smart contracts, but the practice will still be there for those who want to adapt to the new environment. To stretch my Henry Ford metaphor a bit, shade tree mechanics who did not adapt to the technology driving modern automobiles have faded away. Mediators, lawyers, arbitrators and other third parties who adapt to technology will prosper. Those who do not, will not.