



It's only **transformative** if you're **paying attention**—if you're not, it's **disruptive**

BY JOE DAVIS

Legal practitioners and technologists spent a couple of days at MIT's Media Lab at the end of October discussing the future of AI and blockchain.

Blockchain and artificial intelligence (AI) are no longer just buzzwords—they are maturing technologies that many believe will be key components of the next generation of solutions to a wide variety of challenges. Smart contracts, identity, currency, energy and real estate are just a few of the areas in which technology is beginning to outpace the law. The time has come for technologists to work together with law firms, corporate legal departments, governments and non-governmental organizations to establish and advance common goals.

Legal practitioners and technologists gathered at MIT's Media Lab on 30-31 October to discuss the future of AI and blockchain. The MIT Legal Forum was hosted by visiting scholar Dazza Greenwood, and brought together thought leaders from academia, law firms of all sizes, corporate legal departments and Fortune 500 companies, many of whom are members of the Global Legal Blockchain Consortium.

Rather than have attendees passively listen to panel discussions, the goal of the forum was to get various groups



interacting on a range of topics. 'We're talking about trying to put legal definitions around some of the emerging concepts that are coming out of this space,' explained Michael Casey, senior advisor for MIT's Digital Currency Initiative.

After a brief keynote by MIT's Professor Alex 'Sandy' Pentland, the event proceeded with a series of short talks intended to establish a common framework and vocabulary. Christian Smith, Technical Manager at MIT's Sociotechnical Systems Research Center, began with a high-level explanation of the common myths, misconceptions and confusions surrounding blockchain. 'Let's not talk about "the blockchain" in the abstract,' he said. 'There is no mystical superpower that makes mathematics and the laws of physics obsolete, and solves every problem we feel like invoking it for.'

Smith compared the current 'hype cycle' for blockchain to the 'irrational exuberance' of the dot com era, the gold rush, and the tulip mania of the 1600s. 'It's especially important that everyone here can cut through the hyperbole and exercise some good judgement,' he said.

Brian Kuhn and Shawna Hoffman, co-founders of IBM's Watson for Legal, took the stage next to discuss the interoperability of AI and blockchain. 'With more companies and law firms turning to blockchain and more data stored in distributed ledgers, there is a need for advanced analysis methods, which is where AI comes into the picture,' Kuhn said. 'Blockchain can help us verify, execute and record. AI can help us understand, reason and learn to identify meta trends.'

One attendee said she did not see the connection between AI and blockchain, other than the fact that they are both emerging technologies. This is a fair point: much of the marketing around AI has focused on its ability to read and understand non-structured data such as legal and medical documents, and by definition, blockchains hold highly structured data. The key here is that these are both game-changing technologies that have grown significantly in recent months, and the use cases in which both are used together are still being imagined.

Michael Casey returned to the stage with Dan Harple of Context Labs and Harrison Perl of C4Coin to discuss the potential legal challenges of a decentralized energy system that relies heavily on blockchain. Instead of rebuilding the same centralized power grid that was damaged by hurricanes Irma and Maria,

Blockchain can help us verify, execute and record. AI can help us understand, reason and learn to identify meta trends

their idea is to build solar microgrids. The power generated is owned by the system's users rather than by a public utility company. Leveraging Internet of Things (IoT) technology, all the data points produced by the microgrid are recorded on a blockchain, which allows the users to collateralize their stored energy and trade it for goods and services. In addition to the legal and technical aspects, this project involves humanitarian efforts and the economics of an entirely new system of trade.

'Smart contracts are not smart, and they're not contracts,' said Casey Kuhlman, CEO of Monax. The company offers a blockchain-based smart contract platform, though Kuhlman prefers to call it 'microcontracting'. He also offers up a slightly different definition of blockchains, defining them as 'event logs that are kept in sync across computers which are assumed to be operated by different legal entities'. Events in these logs can be evaluated by computation-based smart contracts that are specified in a conventional 'prose' contract.

The smart contract manages what Kuhlman calls the 'happy path,' or what happens when things go according to plan. He is quick to add that smart contracts should be used in an addition to, rather than a replacement for, the prose contract. For managing exceptions and dispute resolution, the prose contract remains tried and true. Kuhlman cites a prototype of parametric insurance in which Monax worked with Accenture to create microcontracts based on sensors in a French vineyard that were set up to track weather conditions. If the temperature in the vineyard dipped below a certain point for a period of time (variables defined in the smart contract), a payout would be triggered to the insured party. ▶



The second day of the forum began with Drummond Reed's discussion of digital identity. Reed is the Chief Trust Officer for Evernym and the secretary of the Sovrin Foundation. 'How would you prove to someone that your social security number was your social security number?' he asked, prompting many in the audience to consider the notion of digital identity for the first time. In a post-Equifax hack era, since so much of the private data we would once have used to prove our identity is now publicly available, the notion of a self-sovereign digital identity is more important than ever.

Evernym and Sovrin's solution is a blockchain-based portable identity that does not depend on any centralized authority and can never be taken away. Reed offered up one of the more technical talks of the conference, adding that 'some of the largest networks in the world are already in discussions with the Sovrin Foundation, engaging with us on trust frameworks that will plug into this'.

He also explained that there were 24 stewards of the Sovrin network in 12 different countries, and that the newest member was law firm Baker Hostetler. Reed closed his presentation by noting that he had recently talked to US tax collection agency the IRS about the possibilities of using self-sovereign identity in filing tax returns, and together they determined that this one use case alone could save the government \$20bn per year. Adding in several other use cases brought their estimate up to \$100bn per year.

These sessions provide a few examples of the presentations at the Forum, offering unique views of emerging technologies. Other sessions included a panel on 'Women in AI and blockchain' and breakout sessions about the implications of blockchains and AI on VAT, bankruptcy proceedings, supply chains, crowdfunding, immigration and litigation. Each presentation and discussion highlighted the ways

in which the path forward depends on the technology and legal fields working together. Baker Hostetler CIO Bob Craig summed it up well: 'It's only transformative if you're paying attention—if you're not, it's disruptive. I want my law firm to be the one paying attention, to be able to deploy these transformative technologies for the betterment of our clients'.

Joe Davis has spent 17 years in legal IT, and is a member of ILTA's Program Planning Council. A frequent speaker and author on artificial intelligence and enterprise content management, Joe has led applications teams at several law firms and is currently consulting with a large corporate legal department. Prior to his IT career, Joe was a teacher, an entrepreneur and a DJ in a flea market. Contact him at joe@josephpdavis.com. ■

Make iManage Work ubiquitous*

*u·biq·ui·tous (adjective) Found everywhere.
Used by everyone.



Link2DMS*

*Link·2·DMS (noun) Integrates popular, non-integrated applications with iManage Work—from Classic Client to Work 10 Professional.

Improve your content compliance, data governance and productivity—**simply and seamlessly**.



RBROSOLUTIONS.COM

