

CRYPTO A.M.

Our series on AI, Blockchain, Cryptoassets, DLT and Tokenisation

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PARTNER CONTENT

CITY A.M.'S CRYPTO INSIDER

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The last week has seen its fair share of tumultuous events with the uncertainty in the Middle East continuing to dominate. Iran's admission of 'accidentally' shooting down the Ukrainian Boeing 737 has certainly not helped investor confidence with many looking for safe havens such as gold and increasingly, it seems, Bitcoin.

As per normal, crypto eyes are focused on Bitcoin (BTC) and the debate continues as to whether the mid-year halving has been priced in and whether or not it is a safe haven hedge. At the time of writing it was trading at US\$8,128.95 / GB£6,260.36; Ethereum (ETH) is at US\$143.89 / GB£110.63; Ripple (XRP) is at US\$0.2118 / GB£0.1631; Binance (BNB) is at US\$15.08 / GB£11.61 and Cardano (ADA) is at US\$0.03707 / GB£0.02855. Overall Market Cap is at US\$216.33bn / GB£166.66bn (data source: www.CryptoCompare.com)

The conference season is now well and truly underway with Washington Elite taking place today and tomorrow before all focus shifts to The World Economic Forum next week where I shall be attending a number of the 'Crypto side events' including CVVC Crypto Valley week where notable speakers include my friend Charles Hoskinson for whom 2020 should be the breakout year for Cardano (ADA) as they progress to mainnet launch and full decentralisation.

In a similar vein with the DeFi (Decentralised Finance) space being espoused as the main adoption arena for Blockchain and in particular the use of the Ethereum blockchain which counts the majority of DeFi projects as users. 2019 saw DeFi expanding 2.1x with many an observer believing that US\$100bn as being the size by the end of 2020.

The news surrounding the Australian bushfires has been with us since September, however with worsening conditions the fire has spread further down the east coast and intensified. Inflection points have seemingly come on an almost daily basis, and this has awoken the world from its new year slumber. As you would expect international efforts and fundraising drives have begun in earnest.

One of the joys of my position is that I get to meet people from all over the world and have, within my community groups, a large number of Australians. James O'Donoghue, from HiveX, reached out to me before Binance and Wirex launched their own efforts, to talk about raising AUD\$50.0m from the global Crypto Community.

Thus the Crypto Fire Alliance was born. Phillip Snelling and I, from Bowater Media, designed a logo, the folks 'down-under' did the rest and now we are launching having received the various authorisations to move forward. Please, whether you are in the industry or not, read the AD Strip at the bottom of the opposite page and make a donation!

Thank you very much in advance!

What technology benefits more than 3 Billion people for 80% of their waking hours?

WEB 2.0.

Web 2.0, coined as Web 1.0 boom burst, moved the world on from static desktop web pages and expensive servers to interactive experiences and user-generated content and brought us Uber, AirBnB, Facebook and Instagram. The rise of Web 2.0 was largely driven by three core layers of innovation: mobile, social and cloud.

With the launch of the iPhone in 2007, mobile internet access broadened both the user-base and the usage of the Web: the browser, mobile apps were now in everyone's pocket.

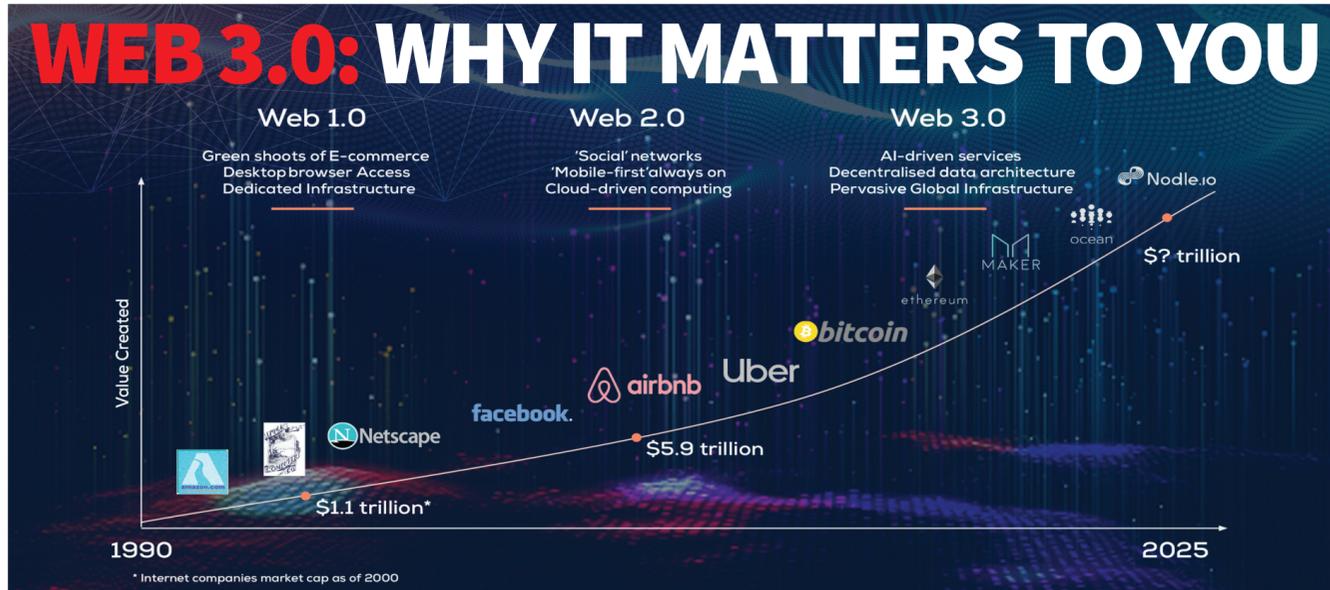
Until social networks such as MySpace and Facebook created online identities, the Internet was largely an anonymous place. These networks coaxed users into good behaviour, content generation and recommendations: from sharing photos online; to entrusting unknown travelers with homes on AirBnB; and getting into a stranger's car with Uber.

Cloud commoditised the production and maintenance of internet pages & applications: shifting from owning expensive dedicated infrastructure to renting storage and compute power. Millions of entrepreneurial experiments could now benefit from low-cost resources that scaled smoothly as businesses grew.

While the Web 2.0 wave is still bearing fruit, the next large paradigm shift in applications has begun, logically entitled Web 3.0 - an even more fundamental disruption. It is a leap forward to open, trustless and permissionless networks.

- "Open": open source software built by an open and accessible community of developers and executed transparently.
- "Trustless": the network itself allows participants to interact publicly or privately without a trusted third party.
- "Permissionless": anyone, both users and suppliers, can participate without authorisation from a governing body.

The ultimate outcome of these new open, trustless and permissionless networks is the possibility to incentivise the long tail



Designed by Phil Snelling, Bowater Media

of work, service, data and content providers across health, food, finance and sustainability.

Where Web 2.0 was driven by the advent of mobile, social and cloud, Web 3.0 is built on edge computing, decentralised data networks and artificial intelligence.

While in Web 2.0 recently commoditised personal computer hardware was repurposed in data centers, the shift to Web 3.0 pushes the data center out to the edge: our phones, computers, appliances, sensors and vehicles, which are forecast to produce 160 times more data in 2025 as compared to 2010.

Decentralised data networks are making it possible for these data generators (from an individual's personal health data, to a car's location & performance data) to sell or barter their data without losing ownership, giving up privacy or reliance on third-parties. In this way the entire long tail of data generators enters the 'data economy'.

Powerful Artificial intelligence algorithms layered on top of these new decentralised data structures give access to a wealth of data that would be the envy of today's tech giants. The potential applications go far beyond targeted advertising into areas like precision materials, drug design and climate modelling.

The Web 3.0 future is where distributed actors interact between peers delivering a composable, human-centric computing fabric.

So much for the technology but what difference will this make to the individuals and society as a whole? It has been said that the characteristic which sets humankind apart is our ability to organise

ourselves in the pursuit of a commonly envisioned goal. Let's look back at the four major social & technological stages in human collaboration:

In Villages, people could trade value, information & work with the small group of counterparties they already knew - limited by geographic proximity & personal trust. The small scale meant individuals had multiple roles in society e.g. farmer, warrior and father.

In Urbanised Cities, the set of counterparties rocketed beyond those trusted personally. It became economically viable to launch new specialised businesses, and rely on others to produce all the remaining goods and services required by the city.

Web 1.0 & Web 2.0 radically shrunk the latency and cost at which people & businesses could trade with geographically dis-

tributed counterparties. Truly global businesses started to form since today's internet allows global coordination via digital social trust intermediaries: from Facebook, to eBay & AirBnB. Unfortunately we have become dependent on these platforms, and when they move from "attract" to "extract", their customers suffer via higher fees or the risk of the underlying platform destroying the business they rely upon.

With Web 3.0, women, men, machines & businesses will be able to trade value, information & work on a global scale with counterparties they don't know or yet explicitly trust, without a trusted intermediary. Constituents of a network trust each other implicitly rather than seeking to achieve trust extrinsically.

Web 3.0 will enable us to interact with

any individual or machine in the world, without having to pass through fee-charging middlemen. This shift will enable a whole new wave of previously unimaginable businesses and business models: from global co-operatives to decentralised autonomous organisations and self-sovereign data marketplaces.

This matters because: • Societies can become more efficient by reducing rent-seeking third parties and returning this value directly back to the users and suppliers.

• Organisations can be intrinsically more resilient to change through their new mesh of more adaptable communication and governance.

• Humans, enterprises and machines can share more data with more privacy & security assurances

• We can own our data footprints by using digital scarcity & tokenised digital assets

• Through 'modern mutual' ownership, governance and economic incentives, participants can collaborate to solve 'thinly spread' problems

The forthcoming wave of Web 3.0 goes far beyond the initial use cases in finance. Through the richness of interactions and the global scope of counterparties, Web 3.0 will cryptographically connect data from individuals, corporations and machines, with machine learning algorithms, leading to the rise of fundamentally new markets and associated business models. The result is akin to a "return to the global village" - everyday, highly-personalised interactions, yet now delivered at global scale powered by a myriad of human and machine skills specialisations.

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CRYPTOCOMPARE MARKET VIEW

Bitcoin's Momentum Continues Past \$8,000

Crypto continued its bullish start to 2020 with Bitcoin soaring past the \$8,000 level to reach a high above \$8,400 on Wednesday. Trading at the time of writing at \$8,110, Bitcoin's solid gains have also sparked some movement in altcoin markets. Ethereum (ETH) recovered from a mid-week slump to trade at the time of writing at \$143, while Litecoin (LTC) surged over 11% last week to trade once again above the \$50 level.

With Bitcoin's halving (where the Bitcoin mining reward halves in size) now only five months away, all eyes will be watching every price movement for signs of a bull run.

In other major news for the space last week, Chinese search giant Baidu announced the release of its own cryptocurrency, Xuperchain. While it remains unclear how decentralised it will be, local news outlets explained that the blockchain-based network is capable of supporting over 10,000 transactions per second and is designed to support

blockchain applications, much like the Ethereum network. The cryptocurrency's whitepaper claims the project aims to modernize China's governance capacity, helping it become a leader in distributed ledger technology.

European Central Bank president Christine Lagarde in an interview last week revealed that the regulator wishes to "play an active role" in the digital asset space. Explaining her position with respect to stablecoins, Lagarde noted that Central Bank Digital Currencies (CBDCs) shouldn't "discourage" private alternatives for "fast and efficient retail payments."

Finally, leading cryptocurrency exchange Binance has committed \$1 million to support the Australia bushfire relief through its blockchain-based charity platform - the Binance Charity Foundation. Binance will donate \$1 million worth of BNB towards its Australia Bushfire Donations program, which seeks donations from the crypto community to provide relief for the ongoing wildfire crisis.

CRYPTO A.M. INDUSTRY VOICES

The UK should lead global consensus for blockchain applications and governance

Blockchain is in full swing in major countries around the world. Although it offers many applications, the industry is still in its infancy. Various problems widely exist within the current blockchain applications market. For example, many companies are guilty of releasing immature and even non-existent blockchain products just to raise funds or to simply attract attention, whilst others use blockchain in applications where it is not needed and provides no use at all.

As a new technology, blockchain needs to be guided during its development with collective effort from government, enterprises and research institutions, so as to form an important consensus to ensure this emerging tool is used properly and effectively. For example, when humans first invented the automotive, people in different countries would create similar standards such as efforts to set traffic rules, built infrastructures, and requirements for driving licences. This was to ensure the safety of users and non-users, to reduce the overall negative impact that the technology might bring to society whilst also enhancing its positive impact. The same should be applied to the development of blockchain. We, therefore, need to agree on rules and regulations for this technology. The UK is well regarded globally for inventing standards in many areas, and it can certainly lead the world again in this respect through blockchain.

An opportunity for creating a rules-based consensus on blockchain exists through cooperation with China. In terms of developing useful applications for this technology, China is a global leader. In fact, China now may have the most applications in the market. For example, an innovative blockchain App,

PxBee, successfully addressed the gap of the IP protection for Photographers, and it now ranks second in the world in regards to daily active users (more than 10,000+). In another application, China's large steel producer P2steel has developed blockchain for supply chain finance. This has brought substantial value by helping SMEs to raise funds along their supply chains, through its provision of trustful data. The Chinese government has also started to use blockchain technology for anti-corruption purposes. One government department in Chengdu has developed a blockchain application to store data that cannot be altered, no matter who has power in that department. These are indeed very good and positive examples of how blockchain can serve the needs of society in China. However, these applications could still project further influence and provide greater utility in all countries, if they could be investigated and refined further. To do this, we should, therefore, start work on building industry standards and rules to form part of a new global consensus on blockchain. The UK, as a proven and experienced leader, is in the perfect position to lead this effort.

Professor Yu Xiong, Chair of Technology and Operations Management, Newcastle Business School. He's chief scientific advisor to the blockchain app PxBee, which now has more than 10,000+ daily active users. He is also President of the UK International Innovation Centre, which runs more than 7000 square meters innovation space in Liverpool Street Station of Central London.

Professor Yu Xiong and Professor Birgitte Anderson are both co-chairs of the Global Council for Blockchain Application and Governance

Crypto A.M. shines its Spotlight on Aave

London-based decentralized finance company Aave launched its Aave Protocol on the Ethereum mainnet last week. Aave was founded in 2017 by blockchain pioneer Stani Kulechov, and since then the team has grown internationally. Headquartered in the fintech capital of the world, Aave hopes to see London become the hub for decentralized finance. Aave's focus is on building an open, transparent, and trustless infrastructure for the \$693.6 million USD decentralized finance market, and the release of Aave protocol is a huge step toward bringing the DeFi ecosystem into the mainstream.

Aave protocol is a decentralized, open-source, and non-custodial money market protocol. Depositors can earn interest by providing liquidity to lending pools, while borrowers can obtain loans by tapping into these pools with both overcollateralized and undercollateralized loan options. Aave protocol is unique in that it tokenizes deposits as Aave interest bearing tokens called aTokens which accrue interest in real time directly in your

Aave protocol is a decentralised, open-source, and non-custodial money market protocol.



Stani Kulechov, CEO of Aave

service secures Aave protocol's 16 cryptocurrency price feeds in real-time, ensuring that the lending rates/prices reflect on-chain as well as off-chain data, and guaranteeing that Aave protocol is decentralized all the way.

"Our mission is to create a diverse money market to enable anyone to receive higher yields for their money via stablecoin deposits compared to traditional savings accounts offered by banks. DeFi provides new opportunities for the mainstream depositors." - Stani Kulechov, CEO

Since it went live last week, there are already over \$2 million USD in assets circulating in Aave protocol. The next steps for Aave are to move ownership of the protocol into the hands of the community. To do this, Aave must add governance smart contracts, self-executing, trackable contracts where no third party is needed. In this initial launch phase, Aave is keeping ownership of the protocol to further audit and respond to any potential issues. Once the governance is released, Aave's native LEND tokens will be used to propose and vote on changes in the protocol. This is an important step toward building an open financial ecosystem where those participating have a say in the governance. DeFi is about creating a more equitable financial system, and people are increasingly taking control of their money as DeFi moves into the mainstream.

SECURITY TOKENS REALISED

As we come up to our fourth event within twelve months focusing on blockchain and tokenization within financial markets it is very clear its gone from general information gathering from thought leading start-ups to real institutional projects.

At our last regional STR (Security Tokens Realised) summit in New York in December senior executives from Citigroup, Fidelity Investments, BNY Mellon, and State Street, all confirmed visions to tokenize securities and assets, backed up with in motion projects.

A robust conversation on timeframes was also held with the institutional grade solution providers present, including Tokeny, IBM, Owenera, Koine, and Archax. General agreement was that tokenisation of the existing

TOKENISATION OF SECURITIES AND ASSETS HAS GONE INSTITUTIONAL

Michael Barrell, Founder STR Global Summits

markets was three to five years away. While this may seem long, in an 800 trillion global industry it would certainly be record breaking, and requires real projects and spend now.

Conversation has moved from blockchain use cases to deployment decisions such as DiFi (distributed financial networks) and new blockchains built specifically for the financial communities.

The next focused forum for discussion on this is the STR Global event in London on the 4th and 5th of February at the Grand Connaught Rooms. While still showcasing the early movers such as independent platforms tokenising assets including property, STOs, and institutionalisation of digital currency, we now have a heavy emphasis on

deployable institutional solutions, including a live demo zone. The leading institutions and suppliers will also be recognised through awards that are being presided over by a panel of judges headed up by James Bowater.

Different global regions also have different incentives to change/tokenise. Ranging from fundamentally broken - much of South America, efficiency improvement - Europe/USA, to enabling sharia law compliance - Dubai. To share knowledge and help enable these changes we are also running events and workshops during 2020 in these regions.

Please check www.securitytokensrealised.com for more information



Australia is in the grips of an ongoing bushfire emergency - Over 2,000 Homes destroyed - Over 1 billion animals and wildlife have perished - Over 25 million acres are scorched - Donate with crypto at <https://www.cryptofirealliance.com.au>

