

CRYPTO A.M.

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

ADVERTORIAL CONTENT

CITY A.M.'S CRYPTO INSIDER

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I returned yesterday from Plovdiv, Bulgaria where I was attending the second anniversary of Cardano (ticker ADA) in the time-warped Soviet Era setting of the Agrarian University. Inspired by the quote 'A society grows great when old men plant trees whose shade they know they shall never sit in' there was a symbolic planting of Ginkgo and Sequoia trees perhaps to reinforce the point that the Cardano project is immense and complex being built using formal methods to ensure longevity, scalability and adaptive usability - a process that takes time.

It also suggests that my friend Charles Hoskinson founder of IOHK (the company charged with actually building Cardano) sees that once full decentralisation is achieved that he will not be sitting in its shade. Meanwhile he is very much hands on and involved using the occasion to make two significant announcements firstly that the 'Shelley' testnet was live and the critical pathfinder to the Cardano main-net Launch. Secondly, announced a project partnership with sports apparel manufacturer New Balance ('NB') heralding the first consumer-focused deployment of the Cardano blockchain. IOHK are collaborating with NB, who continue to fiercely protect their brand and products, on an authentication pilot project. This is a consumer level verification solution which will allow purchasers to confirm the authenticity of footwear on the distributed ledger.

Looking at the market crypto has had a pretty awful week with as much as 15% being wiped off Bitcoin (BTC) and at the time of writing is down 18% from last week at US\$8,052.33; Ethereum (ETH) is at US\$17.95; Ripple (XRP) is at US\$0.2567; Binance (BNB) is at US\$15.38 and Cardano (ADA) is at US\$0.03851. Overall Market Cap is down 19.5% at US\$215.23bn (data source: www.CryptoCompare.com)

Whilst I was away Blockchain Live took place at Olympia where the Atlas City team successfully opened the Catalyst network to developers - now available through the early access programme - that will enable the adoption of scalable, secure and private decentralised computing and data storage systems where first generation blockchains have previously failed. The network will be open to millions of .Net users who will be able to use the platform to build scalable decentralised software solutions. Marking Catalyst's soft-launch, the team demo'd an alternative scenario showing how differently Twitter would operate if run on Catalyst, and also highlighted the blockchain-powered solution to plastic bottle recycling - Reward4Waste - that Atlas City has been working on with CryptoCycle.

Breaking news today is that DSX, the professional cryptocurrency exchange, will be the only UK based, FCA registered platform offering investors the chance to buy Telegram's Gram tokens when they go on public sale.

Finally, I'm very pleased to confirm that CryptoAM Daily will debut on the shares page of CityAM next Monday, 7th October. This is being done in partnership with the exchange Bequant (see below) who will share their data and a summary extract of their Crypto & Coffee analysis newsletter.

Crypto A.M. shines its Spotlight on Bequant

They say that Rome was not built in a day, similarly, it took financial markets decades to move away from pit trading to electronic screen execution. The rate of evolution was dictated by technological advances and by the 1980's, the technology was advanced enough to see banks introduce prime brokerage. The full suite offering was a revolutionary undertaking and to this day, prime brokerage remains a lucrative model. In digital assets market, the evolution rate has been even faster and secondary market trading has been embraced on a global scale. Given the large number of trading venues, together with high retail participation resulted in a very fragmented market, with arbitrage opportunities that have not been seen in traditional markets for years.

For George Zarya, who cut his teeth on emerging market prime brokerage and electronic trading desk, this presented a golden opportunity to use his experience, together with passion for blockchain and digital assets to create a platform that would

cater for institutional and professional traders. The DNA of the group is a blend of traditional financial market experience, with time-tested technology - combined, one stop shop offer of prime brokerage, custody and exchange is a unique model that would cater to the growing trend among the institutional traders in exploring digital assets as an alternative asset.

The team is made up of seasoned financial markets professionals with years of experience in sales & trading, as well as technology based roles, and more importantly with a passion for blockchain and digital assets. The



The DNA of the group is a blend of traditional financial market experience, with time-tested technology



George Zarya, Founder & CEO of Bequant

professional, high-touch approach, is another important differentiator and something that Bequant group takes very seriously. Unlike other crypto trading venues, clients are assigned a sales trader to assist the client along the way, be that during the KYC/AML process or the fine tuning of trading data connectivity delivered via FIX or API, to more advanced solutions such as collocation.

When dealing with professional money managers, it is not all about trading and PnL, but also regulation and security. In the case

of cryptocurrency trading, it is not just the security of funds but also of digital assets. As part of Bequant offering, the Safequant custody solution is offered on a hosted state of the art data centres across Europe, provides system resilience and enhanced physical and cyber security for all of our components. In addition to that, the group is currently undergoing regulatory approval with the Malta Financial Services Authority (MFSa). The MFSa remains at the forefront of regulation when it comes to crypto. Bridging the gap in infrastructure is

happening much quicker than many thought. The launch of Bakkt physically settled futures is a testament to the growing appetite for the new asset class. Even though the market remains a mystery to many, there is a clear interest in the non-correlated aspect to it, the tech and professional minds put together made things easy for evolution of the digital asset class into the next stage - mass institutional adoption.

For further information please visit <https://bequant.io>



Designed by Phill Snelling, Bowater Media

over the mobile space, encouraging people are checking' in all everywhere they go in return for little social badges based on how often they frequent the establishment.

Tripadvisor wanted to grow their community of reviews... what did they do? They utilised the social gratification of the LIKE facebook made popular, and tied that with social badges, resulting in hundreds of thousands of wannabe travel writers and photographers posting review after, filling their servers with original content giving them top spot on all search engine results for every restaurant and hotel in the world - and access to a massive new audience.

Yet Gamification is not just limited to loyalty programmes - it has been very successful in producing all forms of powerful behaviours which can benefit businesses. For example content creation. In 2009 - foursquare was taking

tion. In fact at the Next IGaming Conference in Malta - a large chunk of the day was focused why sports betting and casino use gamification techniques to keep and increase retention and increase profits!

So where does blockchain and crypto come into this? Well, Gamification is possibly one of the most natural fits for this technology both as a use case AND as a driver for further adoption. It provides Trust, transparency and Immutability.

The loyalty industry is big - a \$48 Billion dollars in unused air miles and points are sitting in US loyalty programs today. While everyone is part of a scheme, 1 in 10 people never check their points, and 1 in 3 check their points ever few months. Most just as-

sume their points grow. Right? But did you know 72% of all loyalty programs have been the subject of loyalty fraud. From hackers gaining access to users accounts draining points, Employees & partners of loyalty programs siphoning off points actually due to clients or simply individuals finding loopholes in loyalty offers - this is costing the industry millions yearly.

This is why companies such Qibbee, Loyal, and Incent, are working hard at implementing blockchain solutions which make this fraud easy to trace, and what's more reclaim these tokens using the features various layers on smart contracts and tokens allow.

A blockchain solution for gamified loyalty will not only allow these organisations to save millions in loyalty

fraud, but it will safe guard them from losing an estimated 1 in 4 clients who say they would stop doing business with an organisation if they were the subject of fraud.

But Gamification can do a lot more for the blockchain and crypto industry - as it can help with mass adoption. How? Well there are over 2.5 Billion persons worldwide already using digital currency in games.

These currencies are the precursor to the crypto currencies we know today. From Second Life's Linden Dollars to Fortnite V-bucks we have 1 in 3 persons around the world are actively utilizing digital currencies to buy and selling skins, players, weapons etc - only difference being the currency is stuck in the game.

Just think how the adoption of crypto would grow if these players could actually hold these currencies in their own off-game digital wallet so their digital wealth wouldn't live and die with the popularity of a game.

Fed up of World of Warcraft? No problem - exchange your WoW bolivar for Fortnite's vbucks and boom - your digital asset pile is no longer dead but alive and kicking. Such a small change could result in a sudden increase from 36 million wallet holders (may 2019) to 2.5 BILLION wallet holders worldwide



Moore's law will bring a forthcoming era where every device will become a game

or 1 in 3 persons in the world - so how would that be for mass adoption?

This is the exact plan we have at Quizando, where we will be using a traditional in game token during our first 12 - 18 months, but converting that token with a blockchain utility token which can be stored in one's own digital wallet giving them the option to take control of their in game assets

We believe this is quick and easy backdoor to helping individuals understand and trade in crypto before they make the big move to moving their traditional assets into this space.

Wesley Ellul, Founder & CEO of Quizando in conversation with James Bowater. Further information visit <https://www.quizando.com>. LinkedIn <http://linkedin.com/in/wesleyellul>.

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TRANSPARENCY CREATES TRUST, NOT TECHNOLOGY

Jon Walsh, Associate Partner Blockchain Rookies

Blockchain is often referred to as the platform of trust. But why do we need a technology to return trust to money, supply chains, identity etc?

If you speak to most people today, they will talk about their lack of trust in everything from news broadcasters to the institution democracy. One of the major reasons that trust is so low is that across both the public and private sector, there is far too much opacity. Organisations fear transparency not just for valid commercial reasons, but because it may open them up to probing questions that will make them uncomfortable. In some cases, it might expose them to potential prosecution.

People and organisations who are occasionally get heated if there's particularly probing journalists or investors on the line.

Blockchain's value proposition of using transparency to shine "disinfecting sunlight" upon organisations and ecosystems simply disappears if those organisations took the brave decision to be fully transparent and open to critique. If that would be to happen en masse, it will make the whole Blockchain industry redundant. The problem is, transparency is rarely profitable.

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CRYPTOCOMPARE MARKET VIEW

Bakkt 'Physically settled' Bitcoin Futures Launch

Following a prolonged build-up, the Bakkt Bitcoin Futures trading platform finally went live last week. Initial fervour around the new venue was however dampened by a slow start to trading. Its physically backed futures product saw just five contracts traded in its first hour, 71 in its first day and 165 in total across its first week of trading.

It's also been a slow start for Binance's new US exchange, which opened for trading last Tuesday. At the time of writing, it's BTC/USD and USDT pairs are collectively trading under \$750k in daily volume. It has been noted from previous examples that crypto trading platforms typically take some time to gain adoption.

In the markets, a major sell-off event saw BTC/USDT trade 20% down on Tuesday. The asset broke its \$10k support at the week's open to trade at a

low of \$7,696 on Thursday. A weak recovery to its current \$7995 price suggests the low will be retested this week. ETH/USDT also suffered a major sell-off, falling 26% on Tuesday. It has made a stronger recovery than BTC, however, currently trading 12% up from its low at \$168. Alcoins responded well to the week's volatility, with several coins making major gains in BTC terms. This week's winners include MDA (up 62%), LOOM (up 54%) and RCN (up 38%). BTC dominance is currently at 70%.

This week eyes will be on whether BTC can climb back above \$9k to retest previous support as resistance, or whether it revisits areas of support unseen since its rapid ascent to June's yearly high. Traders will also be watching whether ETH/BTC can make a higher high to maintain its upwards trajectory.

CRYPTO A.M. INDUSTRY VOICES

Rise of the Quantum Internet

I wrote a year ago that collaboration between Quantum and Blockchain was needed. Progress whilst not widespread, is getting there. We're starting to see that same uptick across the whole ecosystem or "Quantum Internet" or as I'd put it, the "Avengers Endgame" of Marshal McLuhan's "Global Village" (who amongst the technerati is oft credited as the inventor of the "Internet").

So what is "Quantum Internet"? Most agree that it's a huge space, that at the furthest end (because it's infrastructure) has quantum computing, quantum sensing, quantum imaging. And at the near end (so to be fixed/adopted first as they're the building blocks for the infrastructure to work) has quantum-resistant cryptography (QRC), quantum random number generation (QRNG), quantum key distribution (QKD), quantum repeaters involving quantum-entangle or quantum-teleport them, described as 'spooky' by Albert Einstein who couldn't believe it. Many also agree it's a huge space due to the market sizes involved, according to numbers from Inside Quantum Technology, a US-based industry analysis firm, the market for QKD alone will reach \$140 million by 2020.

But the roadmap of how we'll get there, is still open to debate. Emile Aurous-Heslton of the United Nations' specialist ICT agency International Telecommunications Union (ITU) explains that "we have seen an influx of leading companies/universities joining ITU as members to develop international standards for QKD and QRNG, in collaboration with ITU Member States. These will be key to the deployment of quantum information technologies and their interoperability". If I had to place a bet on it all, having seen the same developments in cybersecurity but this time from a more bottom up approach, and with so much more pace and impact. I'd say QRC, QKD & QRNG.

To complete my AC/DC electricity analogy from last year, by combining the competing technologies of the Quantum Internet and today's classical Internet, we will get the "Luke Skywalker" of the internet. Stephanie Hanson, David Elkouss and Ronald Wainard in their recent 'Quantum Internet: A vision for the road ahead' that "a quantum internet will - in synergy with the 'classical' internet that we have today - connect quantum information processors in order to achieve unparalleled capabilities that are provably impossible by using only classical information."

"UK's National Dark Fibre Infrastructure Service demonstrated running a 5G QKD secure network in Bristol in September. Next stages involve integrating this technology into ground and satellite systems," said Andrew Collins from the UK's Quantum Technology Enterprise Centre, part of the UK's Quantum Communications Hub. Also, in the EU, 10 countries agreed to plan (in the next year) the deployment of an EU quantum communication infrastructure over the next 10 years. Leveraging existing fibre networks across countries, and satellites for longer distances. In the past 2 years, Chinese & Austrian scientists have increased satellite-to-earth QKD by 40 times for their Micius satellite, which was the first to make an unhackable call (using QKD) between the 2 countries.

The Quantum Internet is also already mainstreamed, in a way that I don't remember Cybersecurity (which was progressive beyond its time) when at this stage in its development. We're already featuring Quantum Internet companies on my own cybersecurity comparison website for small and medium businesses, ProtectBox. The Hudson Institute's Quantum Alliance Initiative has also released The Executive's Guide to Quantum Computing and Quantum-secure Cybersecurity.

With history often repeating itself, as was once said of the internet that it'd grow in "dog years not human years" so too will the Quantum Internet. Add to that what (quanterati's grand-father) Professor Jonathan P. Dowling said way back in 2003. We're not that far away.

Miss Kiran Bhagotra, CEO/Founder, ProtectBox (multi award-winning cybersecurity comparison website/marketplace for small and medium businesses) making buying cybersecurity quick, simple & affordable.