

CRYPTO A.M. Our series on AI, Blockchain, Cryptocurrency and Tokenisation

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PARTNER CONTENT

CITY A.M.'S CRYPTO INSIDER

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TEN YEARS ago on 15 September 2008 Lehman Brothers filed for Chapter 11 bankruptcy protection to the tune of \$600bn (£456bn) and remains to date the largest bankruptcy in US history. It's an important landmark because the 2008 global financial crisis was the primary inspiration for Satoshi Nakamoto's Bitcoin white paper, paving the way for the Blockchain and Crypto industries as they are today.

The Crypto market has been going through its own pain this year but seems to be stabilising with a market cap of circa \$200bn, Bitcoin settling at around \$6,500 and Ethereum's price slide halting around the \$220 mark. Mike Novogratz of Galaxy Digital suggested the market has hit a bottom in his tweet on 13 September. The following day Tim Draper, another major industry figure and venture capitalist, predicted that the total market capitalisation should hit \$80 trillion in the next 15 years. For this to happen it is essential, in my view, that we see institutional and mass adoption. Although there is a general feeling of hurry up and wait, one area where there is movement is with stablecoins (cryptocurrencies pegged in value to a stable asset such as gold or the US Dollar). Gemini cryptocurrency exchange, having had its Bitcoin ETF application rejected, did get approval last week for the Gemini dollar. Clearly aimed as a competitor to Tether ('USDT'), Cameron Winklevoss wrote: "To date, there has been no trusted and regulated digital representation of the US dollar that moves in an open, decentralised manner like cryptocurrencies." He went on to say: "The Gemini dollar ('GUSD') combines the creditworthiness and price stability of the US dollar with Blockchain technology and the oversight of US regulators, namely, the New York State Department of Financial Services." Hot on the heels of the Gemini 'good news' story, a regulated custody solution has finally arrived, as reported in Off the Chain with Anthony Pompliano. "BitGo, a Blockchain security company, received a state trust company charter from the South Dakota Division of Banking late last week. This milestone cements BitGo as the only qualified custodian in the United States built exclusively for digital assets." Closer to home, the Blockchain International Scientific Conference (BISC) 2019, from the British Blockchain Association (BBA), is gearing up and seeking papers, panelists and speakers from the Blockchain world. Researchers, academics, technologists, Blockchain developers, policy makers and other stakeholders are welcome to submit their original research papers, pilot projects and case studies to BISC 2019.

FOR YEARS, cybercriminals have been experimenting with new ways to steal and extort money from victims. More recent trends involve the boom in cryptocurrency. Here, Tyler Moffitt, Senior Threat Research Analyst at Webroot, explores the relationship between cybercrime and cryptocurrency.

Basic ransomware attacks, where a cybercriminal demands payment in exchange for something they've taken from your computer, have been around since the mid-noughties. Early iterations would impersonate the FBI and demand payment to avoid exposure of nefarious activities they claimed victims had been doing. But as technology, digital currency and online payments have evolved, so have the tactics used by cybercriminals to extort money.

In the FBI scam days, the anonymous online market Silk Road was appearing and experimenting with Bitcoin as its chosen currency. The underground black market, hidden on the Dark Web, was the ideal place to

“Cryptojacking is the newest way for cybercriminals to generate money

acquire goods and conduct illegal activities away from law enforcement eyes. For years, the marketplace thrived and proved that Bitcoin worked well for monetary transactions and transfers.

All of that ended when the FBI seized Silk Road and arrested its founder in 2013. The site was shut-down and the value of Bitcoin took a sharp dip. However, it didn't take long for Bitcoin to bounce back, and since then it has seen several booms that re-



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sulted in eye-watering values. But cybercrime has played its part. Sophisticated encrypting ransomware (where hackers obtain access to precious files or photos and lock them down) entered the scene shortly after Silk Road's demise. Initial attacks proved hugely successful, and new ransomware variants continued to emerge to infect millions of individuals and businesses around the world. While early editions accepted a range of payments, they actively encouraged the use of Bitcoin by offering a "discounted" ransom.

This became the start of cybercriminals preferring cryptocurrency over preloaded cash cards.

As ransomware became the number one online threat, Bitcoin also saw a major increase in activity, in which the payment of ransoms will have played a contributing part. However, the public ledger system that Bitcoin is built upon meant that addresses were linked to criminal campaigns resulting in a number of arrests. Thereafter, criminals looked to

adapt and find an alternative digital currency. Monero might not have entered the mainstream until 2016, but it is slowly becoming the most usable cryptocurrency for criminals so far. Its private ledgers hide both the origin and amount of the transaction, making it completely untraceable. Criminals can freely send Monero to any address and then cash it out without the need to launder their ill-gotten gains.

Monero is also unique in that it can be mined profitably using regular CPUs inside personal computers, and phones, instead of requiring specialised hardware, sparking yet another trend for criminals: crypto-jacking.

In cryptojacking, cybercriminals don't have to deliver a single piece of malware to profit. Instead, crypto-jacking targets websites to hijack visitors' computer power to mine Monero for the site's owner.

This new trend has been gaining momentum since CoinHive first debuted the mining JavaScript in Sep-

tember 2017, and has even been used on legitimate websites as an alternative to serving up annoying sidebar ads.

This isn't money out of thin air, though as users are still liable for their computer's power usage, the cost of which shows up in their electricity bill. While the spike in electricity bills may not be especially noticeable on an individual level, the cryptocurrency adds up fast for site owners who have a lot of visitors.

While CoinHive's website explained that this was simply an ad-free way for website owners to generate enough income to pay for the servers, it's clear cybercriminals are abusing the tactic.

All a criminal needs to do is inject a few lines of code into a domain they don't own then simply wait for victims to visit that webpage and generate clean profits in the form of cryptocurrency. In the first half of this year Webroot has blocked over 12m webpages compromised with the CoinHive JavaScript to mine Monero by hijacking site visitors' CPU power.

The amount of labour and illegal footprint is minimal compared with ransomware, making cryptojacking today's #1 threat.

Cybercriminals are always looking for new ways to get ahead. They utilise a vast range of tools to extort funds, and the evolution of cryptocurrencies has provided them with a low risk new means of pocketing funds from illegal activities.

To avoid falling foul of their schemes, users should ensure that they take security seriously. Think twice before opening that email or clicking that link, or you might find yourself an unwilling cryptocurrency investor.

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CRYPTO CHALLENGE FORUM 2018

Blockchain and the Future of Humanity: Economy. Environment. Ethics

Crypto Challenge Forum is the world's major industry event. It will take place on 28th - 30th October 2018 at the iconic Central Hall Westminster, London, connecting global thought leaders, policy makers, investors and startups from across the world for a three-day top content event. It will be attended by the industry leaders, think tanks, institutional and private investors, family offices and VC firms.

The forum is privileged to have some of the world's most authoritative speakers, some of whom are global transformers.

Split across three tracks, the Forum's agenda will address a range of global issues including the Future of Digital Investment and Regulatory Framework of the Crypto.

The Forum will see an unprecedented agenda «The World's Ecosystems and Crypto Investment» where a whole track will be given to crypto friendly governments who will be showcasing their ecosystems and highlighting their Blockchain initiatives. Global announcements are expected to be made.

A distinctive feature of Crypto Challenge Forum is the Investors' Hub - an exclusive networking area where the brightest startups will have access to decision makers representing participating investment funds, VC firms and family offices, with a total of 70B USD under management.

An ICO contest with 100k prize pool to be distributed in three prizes will be held alongside the two day exhibition in the Hall's lobby.

Last, but not least, the Forum abounds in a rich networking programme ranging from post-conference receptions to private VIP retreats. It will culminate in the black tie Halloween Gala & Awards Giving Ceremony at the renowned 8 Northumberland Avenue.

The Gala will feature award giving in a variety of nominations including, inter alia Crypto Challenge Forum 2018 Most Innovative Regulator of the Year, 2018 Blockchain/ Crypto Investor of the Year and ICO Advisor of the Year.

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ICO NEWS

Crowdfunding 3.0 & 300 Time Bombs a'Ticking

As we enter this new season, looking back over the last seven years it's not difficult to see how Crowdfunding has transformed both innovation and entrepreneurship, providing an open door, open access to the open market, for startups and ventures of any size.

Meanwhile Fintech has begun to prise open payments and, to a limited extent, the financial system, by starting to bring some of the gains of technology to customers rather than ignoring them or pocketing them as cost-savings for intermediaries.

My most recent interview with one was with Zwoop, which calls itself a 'Find Engine' seeking to end the ripoff of biased e-commerce, and claims to be able to get you there - including past the hype and highest bidder to the best deals - in a fraction of the time... from minutes searching for the best deal to seconds. Meanwhile sharing the fruits of your data (allowing you to opt out if you prefer) with you.

In this case not a mere idea but a venture already funded and with a track record, MVP and, indeed, beta platform. Zwoop are typical of the disruptors, innovators and pioneers I have interviewed over the last 33 episodes and seven months on ICORadio. Other notables include DESICO, Kinesis, CosmeCoin, and inventor of the ICO J.R.Willet.

Initial excitement may be abating somewhat as we head out of summer but around 300 innovation time-bombs are ticking - at an ever increasing pace.

While the trend is now to work with the VCs, who'd previously have been calling the shots but have been scrambling

Crypto A.M. Shines its Spotlight on SatoshiPay

THE ADOPTION of crypto blockchain payment solutions is occurring across multiple sectors. However, to date there has been no accessible and cost-effective way to transact in micro amounts, something that is particularly important in high volume low margin transactions. This has now changed.

SatoshiPay, a UK registered company run by a team of international technology and payment specialists, has developed a solution providing a frictionless global micropayment infrastructure based on blockchain technology.

CEO Meinhard Benn said: "On the internet it was impossible to make payments of 1c or less. By using peer-to-peer blockchain technology, we have solved one of the long-standing problems of the commercial web: processing high volumes of low value transactions."

These transactions have previously been commercially unfeasible primarily due to the level of fees that are paid to third parties, bad usability and high transaction costs. With existing bank infrastructure service providers charging base fees of 10-30p per transaction plus a percentage, it made it difficult for digital vendors to maintain viable micropayment business

models. With SatoshiPay, the payment amounts start from as little as a fraction of a pence, enabling the company to strategically position itself to take advantage of an estimated \$10bn fee market.

Benn continued: "In essence, SatoshiPay is a digital "pocket change" wallet for the web, where internet users can pay small amounts, starting from as little as 1p, for web content like articles, blog posts, music, podcasts and videos. People spend billions on micropayments in video games. We've created a similar user experience for the

blockchain technology.

“Blockchain helps us to remove one of the biggest obstacles for micropayments - mental transaction costs



web, and this will unlock a whole new set of revenue streams starting with publishers."

Initially targeting digital content creators, SatoshiPay allows individuals to pay for web content that they want to consume and allows publishers to monetise their digital assets in tiny increments and without friction. Thousands of online publishers have already signed up for the service, including UK's most-read tech blog The Register. One of the backers for the company is Axel Springer, one of Europe's biggest media houses.

SatoshiPay is supported by several major core infrastructure and service providers including blockchain provider Stellar Development Foundation and card payments company TransactWorld. Notably, as part of the partnership with Stellar, SatoshiPay has been granted to distribute 50,000,000 Stellar Lumens, currently worth more than £7m in total, as part of a series of giveaway programmes to encourage uptake of SatoshiPay by end users.

Notwithstanding SatoshiPay's initial success in media, the company has a clear vision aimed at increasing its reach and becoming the industry standard payment infrastructure platform for micropayments. To achieve this goal, SatoshiPay is developing complementary solutions to support different sectors.

Benn summarised: "Payments for digital content are just the start. We've built a general-purpose micropayment infrastructure that will allow payments in many different industries, like the Internet of things, retail or public transport. In the future third-party developers and businesses will be able to build their own micropayment products on top of our platform."

THE BEST OF BOTH WORLDS: GOLD AND CRYPTO

Jai Bifulco, Chief Marketing Officer of Kinesis ICO, Blockchain and Cryptocurrency Expert

CRYPTOCURRENCY and blockchain technology have presented a unique opportunity to change the manner in which the world transacts. What makes money successful and sustainable is the degree to which it is an efficient medium of exchange between two parties as well as a stable store of value.

This definition is supported through the economic principal of Gresham's law which defines the concept "bad money drives out good", which suggests when dealing with two currencies, individuals are likely to spend the currency they deem less valuable adopting a pattern of 'hoarding' for that which is deemed more valuable.

This can be observed within the crypto sphere as volatile markets cause individuals to react similarly as they hold cryptocurrencies in hope for positive growth.

Gold has been valued by civilizations all around the world for thousands of years, maintaining its status over time as the most effective store of value the world has ever seen.

Gold and crypto are both stores of value, however unlike major cryptocurrencies gold is a stable, where crypto is not. Crypto is a fairly efficient means of exchange, unfortunately it can be slow, expensive and of course with the wild volatility, people choose to hold more often than spend.

A system which is able to bring together the pros of both gold and crypto, whilst minimising the negative consequences just

like the Kinesis Monetary System can revolutionise the money as we know it.

Cryptocurrencies, such as Bitcoin and Ethereum are systems whose value is based on the digital supply of these currencies; Attempt to replace the current fiat-based system with a digital currency, however both lack intrinsic value.

Precious metals ensure a stable store of value, whilst maintaining the security, transparency and integrity of the blockchain. Before we find out whether or not that is the case, we remain spectators of a race to find the winner who is able to best utilise blockchain technology to solve the problems of today. We do encourage those interested to investigate how Kinesis Money is achieving this monumental task.

