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Can Blockchain help stop human trafficking?

By Jillian Godsil

Human trafficking is a multibillion dollar business and it is growing exponentially. Consider the fact that a kilo of drugs can only be sold once only but a human being can be trafficked over and over again. It’s all in the maths. 40 million people are trafficked each year with half being women and children, and most sold into the sex trade. This is modern slavery.

While researching this story I spoke with a number of people active in highlighting the issue or seeking to put a stop to this heinous crime. I had imagined that human trafficking belonged solely to developing countries where human life was considered cheap – not a comment on my part, I may add, but an observation. To my shock I discovered that

To my shock I discovered that human trafficking happens under our noses in well-developed countries and includes people of all nationalities including the host nation. In fact, if a child runs away and is on the streets in any city, any western city, experts say that the odds are they will be trafficked if not found in 48 hours. 48 hours? That is in just two days.
It’s also a scientific fact that we humans are never more than six feet away from a rat, our faithful shadow. The same can be said for trafficking human beings – they are all around us, but we have not been educated to open our eyes.

A charity in Ireland called MECPATHS (Mercy Efforts for Child Protection Against Trafficking with the Hospitality Sector) was founded in 2013 as a non-profit organisation to work directly with the hospitality industry to prevent child trafficking. One in four victims of human trafficking worldwide is a child and in COVID this is even worse as children in danger can be locked down with their abusers or spend more time online and risk contact with traffickers.

The definition of child trafficking is the ‘recruitment, transportation, transfer, harbouring or receipt’ of a child for the purpose of exploitation under the United Nation’s Palermo Protocol, and a child is defined as any person under the age of 18. The United Nations regards all trafficking as modern slavery.

Trafficking exists undetected for two main reasons. The first is lack of education on what a trafficked person might look like, how they might behave, where they might be found. The second is our misplaced emphasis on privacy.

Patrick Baker, an independent Irish radio documentary maker, spent a year working with MECPATHS to record their work and produced an impactful documentary called Do Disturb. In it, she explores what we need to look for and how MECPATHS works with the hospitality sector to make them aware.

“I fell into this story while researching another, and was shocked to discover not only is human trafficking present in every village in Ireland, but we here in Ireland have been downgraded in the annual Trafficking in Persons Report published by the US Department of State to Tier 2-watch list.

The need for public awareness is paramount; the statistics are frightening and overwhelming.”

Detecting child trafficking is not a clear science, but a series of observations combined can help illuminate such slavery. MECPATHS educates people working in the hospitality sector. Porters are taught to check if young adults or children arrive without luggage. Receptionists are taught to see if the child looks upset, if the body language looks off, even if they do not resemble their ‘parent’. Do they have identification? A passport? Then maids are taught to note if extra towels are ordered for a room. Night porters are taught to question multiple visitors to a room. It is not just one thing; it is a series of things and what is the worst outcome that can happen if an incorrect call is made? Egg on face? Perhaps, but surely that is so much better than having a child trafficked under your nose.

In the radio documentary, a brave young Irish woman explained that her father trafficked her for sex from age four until eight. She argued that someone might have seen something wrong, spotted something amiss. She called out for people to ‘twitch that curtain’ and be nosy. And this is the second point which lets off the purveyors of human trafficking.
We are taught not to interfere into other people's business, in their marriage, in their home. It is only recently in Ireland that domestic abuse is being called out, people are calling it out, it is no longer good enough to say what happens behind closed doors is their own business. It feels alien to tell tales but when lives are at stake then we are encouraged to be that whistle blower.

There is a third reason why trafficking is growing – the lack of prosecutions since 2015. Globally, these have fallen by 42% and in Europe, prosecutions have fallen by 52% leaving the perpetrators of these crimes to conduct their business with impunity.

If awareness and education can help stop trafficking, how can technology help?

One way can be to limit access to the web. In February 2020, Irish web hosting company Blacknight joined industry giants such as GoDaddy, Nominet and Amazon to agree a common framework to address abuse of the DNS by criminals. This voluntary agreement identifies four types of web content abuse which includes child sexual abuse materials and human trafficking. If witnessed, the 48 companies so far signed up have agreed to disrupt this content without waiting for a court order.

But how can trafficking be prevented at source? This is an issue that led entrepreneur Jax Harrison to set up two companies: a for-profit to develop and combine technology to help children at risk called Innovation For Good and a not-for-profit to implement the technology and education called StopChildTraffic.org.

Originally from New Zealand, Jax worked in Peru for many years and witnessed first-hand the fate of street children in a time of terrorism and political unrest. She was involved in helping to establish an NGO for a local orphanage where parents would surrender their children to keep them safe from being trafficked, into sex or as child soldiers. This sparked her lifelong interest in working to save such children but to her horror when she travelled to the US and settled in Kanas City, Missouri she discovered child trafficking was very much present there too, in fact she discovered that Kansas City is considered an origination city – from which children were trafficked across the country.

Now she uses technology, and notably blockchain, to develop technology to protect children. Her starting point is prevention and she has worked closely with the UK government to provide safe protocols for children accessing online services.

“That also includes educating parents what to look for in their child's behaviour and if your child is playing an online game, chances are they have already been approached in the accompanying chat rooms. There are some basics – parents are meant to parent and not to be their child’s friend. Simple actions like once a week looking at their phones, checking where they have been, and having access to their passwords."
That is just one element, Jax is bringing together CEOs of technology companies to use AI and blockchain to map the locations of vulnerable children and the potential traffickers. “We follow a similar trajectory used to track terrorists. It’s all about disrupting the supply chains, with the slim numbers of people being prosecuted we need to break the chains so they can’t pass on the child.”

Another key element is identity. A child or person who is trafficked is most likely denied their identity or may not have any. Likewise, they do not have access to money and are largely unbanked. She is working to develop a platform that allows an undocumented person to claim their identity and attach it to a self-sovereign wallet.

“Identity and financial access are key to keeping people safe, recovering trafficked people and helping them get their lives back.”

For example; Innovation for Good and StopChildTraffic are working with Wyofii and Secours.io to help provide access to good digital identity and to finance.

Wyofii are the Innovators bank and as a Wyoming state-chartered Special Purpose Depository Institution (SPDI), Wyofii is a bank with purpose – enabling innovative companies to operate through their compliant financial services on a robust fintech platform in a thriving global ecosystem. One of the ways they do this is through their proprietary blockchain protocols which provide frictionless transfer of all types of currencies i.e from crypto to Dollars. They do this in a seamless user experience enabling one currency to transfer to a preferred currency providing a frictionless transfer from sender to receiver. This opens up opportunities for at risk populations to use all forms of digital currencies and transfer options.

Secours.io is the first global, cryptographic public safety network based on the TrustOverIP Foundation and Sovrin Foundation governance architecture.

A new hybrid platform whose most powerful imperative is trusted digital relationships, verified credentials, secure data transactions and AI. This unified global safety infrastructure empowers a new digital mechanism of trust between citizens and public safety.

This risk mitigation, loss control platform which can take the form of a digital wallet allows integration of any application, phone, or IOT device, freeing others from having to create this pivotal public safety infrastructure. They bill themselves as the “Intel Inside” of public safety.

“It is imperative that we use all forms of cutting-edge technology for the good of humanity and to prevent harm to those who are vulnerable to these heinous crimes. It is only by working together that we can break the supply chains and save millions of children from being trafficked,“ says Jax.

BIO

Jax Harrison is the CEO Innovation for Good Inc. and founder of StopChildTraffic.org.
CryptoWriter. Kindle Edition
David Harney is a lifer at Irish Life, literally. He joined the company at 17 and has stayed ever since. His rise has been of the meteorite-quality and in 2007 he was made Head of Corporate only to face into devastating loses the following year in the global financial crash. Despite or perhaps because of that, he was promoted to CEO of Irish Life Group in 2016, following its bailout by the Irish government and subsequent sale to Canadian Insurance giant, Great West Lifeco. Then just three weeks ago, he was promoted to President and CEO Europe of Great West Lifeco.

The loose coalition working alongside Irish Life are household names such as Vodafone, ESB, An Post, A&L Goodbody, Deloitte and FEXCO.

Notwithstanding his promotion since the presentation, David assures me he is staying on as champion of the Identity project – codenamed Emerald. “The project is a national one, hence the other companies involved, and the government is interested in it too. Once we figure it out, we would like to share our solution internationally,” he says.

First of all, Emerald needs to sort out definitions of identity – and credentials.

“Identity is who you are. You are born and you exist as a unique human being. Then credentials are the things that you present to prove that you who you say you are”.

“The Emerald project is to create a digital credential or set of credentials that you own and carry with you in an electronic wallet which you can share as you need.”

Currently, the situation of proving who you are online is messy with duplicate requests from company to company and even from different government departments. The holy grail is to evolve a solution that allows the individual to digitally share their data and to have it trusted.

“It’s mad because when the internet was invented no one thought about digital identity. It’s a problem that is only being addressed now by coalitions such as Emerald.”

It’s certainly true that the internet did not address these issues, in fact anonymity was a benefit where no one could tell who you were – you could even be a dog online as the New Yorker cartoon from Peter Steiner famously showed.
“Like other financial companies we have to validate people before we onboard them as clients. This is a very costly business. But there is no point to us building a single solution. In fact, there is no use in groups of financial companies developing a product for their sector. It needs to be across society and with government involvement. Self-sovereign identity implies you own your data and it is private. We see our role as building the infrastructure – like a motorway or a pipe for electricity. Sure, there will be commercial applications of the infrastructure, but the actual development is open source or not for profit.

“We are using blockchain as the technology that ensures the credentials can be verified – which particular brand of blockchain I am not interested in. We are blockchain agnostic. And we are using smartphones as the ubiquitous device available to everyone.”

In terms of the roadmap, David is still very much on board, despite his new role and is confident the group will have a pilot up and running by the end of the year.

“Maybe a mock up of the current government ID system, trial it with our customers and see how it works.”

As he said at the beginning, identity management is costing corporations billion around the globe.

BIO
David Harney is President and CEO Europe, Great West Lifeco.
Sebastiaan van der Lans In a Trusted World

Sebastiaan van der Lans is CEO and founder of WordProof

By Jillian Godsil

In June 2020, WordProof and Sebastiaan van der Lans were awarded the top prize of Blockchain for Social Good by the European Commission and with it a whopping €1 million. They beat off 175 contenders from more than 40 countries at various rounds to emerge the overall winner with a voting score of 29.5 out of 30 by the voting jury. So what is the WordProof project and why did it win?

Sebastiaan starts by explaining that the internet as we know it now is broken. He maintains there is a deep-rooted issue with its trustworthiness. Currently 29% of Europeans are suspicious of the internet with 86% of Europeans saying they have fallen for fake news online.

“Here at WordProof.io we want to bring back trustworthiness so that what I read is real and I can verify who wrote it. And then in the example of an ecommerce dispute, how can we retrace the steps? Well, our solution was to leverage blockchain timestamps so we can return to a trusted web – for everyone.”

WordProof timestamps content on the blockchain which is helpful for viewers but also for search engines. If changes are made after the original posting, then these are highlighted too. Perhaps the revisions are helpful like a rolling news item, but sometimes they might be unhelpful.

To give a real example, we could look at recent UK political fallout in April during their lockdown. The US chief advisor to the prime minister, Dominic Cummins, made headlines beyond his breaking of the lockdown when changes were spotted on his blog from the previous year to appear to make him more expert if not actually prescient on the issue of the coronavirus.

According to the Guardian newspaper, a data scientist spotted the new edits using periodic snapshots of Cumming’s blog saved by the Internet Archive. But these changes were only spotted as a result of intense scrutiny of his movements during the political furore. Otherwise, the insertion might not have been spotted and the advisor might be able to claim he was much more knowledgeable than he actually was.

WordProof does this automatically to all Wordpress websites when installed. Given that some 38% of all websites are based on Wordpress this has the capacity to radically update the content served online.
“Even on rolling news sites, it would be good to see what was there before. Has an editor radically changed a viewpoint, added in beneficial news, deleted controversial details. The revisions can be seen – very clearly what was added and more importantly what might have been taken away.”

In simple terms, text altered is colour coded; with green text showing additions and red showing what has been removed. It’s like track changes only time sensitive.

WordProof was launched at WordCamp Europe, the largest WordPress event in the world where Sebastiaan gave a keynote speech. And it has really caught on with hundreds of sites signed up and more than 250,000 pieces of real information timestamped, which in turn have been served on the internet more than 100 million times.

“It’s not just about the technology it’s about social good, making the internet safe for grannies, grandchildren and everyone in between. It is also about rethinking making mistakes.”

Sebastiaan notes that there is a kind of taboo about making mistakes. People lawyer up and become aggressive rather than just putting up their hand to acknowledge the mistake.

“Wouldn’t it be better if news providers can say we want to be transparent and if that means showing our mistakes, so be it. And we need consumers of news to say it’s okay to make mistakes.”

It’s a good point but it will need a seismic change in society and issues like defamation and libel will need to be re-evaluated. If an editor or publishing house gets it wrong, will it be enough for the paper to apologize and correct the mistake or will they still be sued for damages. Will an apology – with transparency – be enough?

Sebastiaan argues that building a trusted web is also going to take some leaps of faith. “Transparency is key as well as linking identities to the content. Combined - they offer accountability and can be ranked higher in a trust score – surely that is to be welcomed by sincere content providers?”

Sebastiaan has been involved in the WordPress community for more than 13 years. He is also an early ambassador for the Europechain project based out of the Netherlands. Europechain is a GDPR chain offering enterprise level solutions for their customers. While blockchain agnostic, he loves what Europechain is doing for GDPR and protection of people's information. “It'll work when corporations get on board, and that is what Europechain is doing.”

The more people working to make the interest a trusted world again, the better.

BIO: Sebastiaan van der Lang is CEO and founder of WordProof. 
Croesus, King of Lydia (now western Turkey) was rumoured to have descended from King Midas himself. A patron of artists, he is now more famous for inventing money, or sovereign currency, to be precise. Before Croesus, no sovereign power had ever issued its own standardized currency or linked its value to a given weight of gold.
Of course, coins were in circulation. **But in 564 B.C, Croesus issued a coin with a very special feature:** A promise of value underwritten by a King, or sovereign. Hence the term “sovereign currency” and the appearance – on coinage in monarchies like Britain and Spain – of the monarch’s head on the coin.

Look at a Sterling ten-pound note, and you will see the words “I promise to pay the bearer.” That promise - originated in the days when ten pounds sterling would actually have bought a significant amount of gold – gave the holders of currency the confidence that if they needed to, they could go to the King’s treasury and redeem their currency for gold. Gold, silver and bronze coins soon proliferated around the Mediterranean.

It is rumoured by some that Homer’s Odyssey and the story of Helen – the face that launched a thousand ships – was really an allegory for what happened next: Competing to creating new currencies, regional Kings and cities launched a thousand ships to mine gold, silver and copper and tin (both of which made bronze) to issue their own currency. The world’s first great age of monetary innovation had begun. And a system of regulating trade was created.

By acquiring a net influx of foreign currency – the ability to exchange it for gold led successful export economies to be able print more of their own currency. Correspondingly countries that were net importers would lose currency. With more currency in circulation, prices in an economy would tend to rise as there was more money chasing the same amount of goods.

With less currency in circulation the reverse would happen. Thus, a self-correcting system of balancing payments problems between nations was born. That standard – the gold standard – endured for over two thousand years and only ended in our lifetime when the dollar was cut loose from gold.

**Now a new consumer economy backs money with something else:** Confidence. Confidence in the ability of a standard unit of money to command purchasing power over thousands of products and services that now constitute the real underlying value of an economy and its productive power. And when that productive power breaks down – as in war time – other substitutes have arisen: Cigarettes and Nylon stockings during wartime, for instance.
The Tang Dynasty (618-907 CE) is regularly cited as the greatest imperial dynasty in ancient Chinese history.
But we’re moving too fast. A thousand years or so after Croesus another monetary innovation occurred on the other side of the world when under the Tang Dynasty of China merchants enduring long journeys on the Silk road sought a way of avoiding carrying large bulky heavy bags of copper and silver coins.

The answer? A paper certificate in the Emperor’s name. This innovation greatly helped bring in an era of prosperity and flourishing trade that – for over a thousand years – made China the world’s largest economy. Some 1,300 years later, China is now pioneering financial innovation of a different kind, with its government embracing blockchain and cryptocurrency as official strategy in a way that echoes Croesus 2,500 years ago. Likewise, China’s economic hegemony may also be about to return.

But with money comes the ability to abuse money. In between Croesus and the Tang Dynasty and their inventions of new forms of money there arose an empire that would rule for a thousand years: The Roman empire. Where the Greeks invented money and the Chinese made it more efficient, the Romans created the first imperial economy in which money circulated widely and was produced on a large scale. Too large a scale by the third century.

Needing to pay restless troops an increasing amount of money to avoid assassination, Roman emperors of the third century BC found themselves having to print ever more of it. The rising tax burden on citizens – and ever-growing demands for increases in soldiers’ pay – became politically impossible for emperors to reconcile. At first Roman citizenship was extended to all non-slaves in the empire by emperor Caracalla, not as a democratic reform but as a way of increasing the number of taxpayers. But that didn’t work. So eventually, the Roman mints created more money by reducing the gold and silver content in coins issued.

For a while, it worked. But by the 280s AD, few had confidence in a Roman coin whose silver content was now a fraction of what it had been a century before. Barter returned and, under the reign of Diocletian, a sort of distributed ledger system was introduced to keep track of the relative values of goods in relation to each other. Necessary to enable to raise taxation in kind, this system was a kind of ancient blockchain which also enabled the restoration trade. After Diocletian, the system broke down and Constantine issued the “solidus”, a gold coin of impeccable integrity that re-established a trusted standard. Trouble is, it only benefited the rich (sound familiar?).

On and off and with interruptions due to war, famine and other crises, the Gold standard established by Constantine was replicated and sustained for over 1,600 years. By 1914 the gold standard was led by Britain, then the world’s greatest economic and political power. Taking the pound off the gold standard during war, Britain returned to gold in 1925 but made the error of returning at the earlier value. But the war had altered the balance of economic power. America, not Britain, was now top dog.

A British pound’s weight in gold was no longer, relative to the dollar, worth the British economy’s ability to produce goods and services. Low interest rates were a temporary sticking plaster. But that in turn led to overinvestment in other assets contributing to the 1929 crash. It was to take a world war to restore prosperity after the failed economic and political experiments of the 1930s.

That economic experts meeting after the war could do little better than rebuild Croesus old system – albeit with some significant improvements – was telling. At the Bretton Woods conference of 1946 economists like John Maynard Keynes created a system of fixed but monitored exchange rates backed – just as twenty-five centuries before under Croesus – by gold. But there was a difference: Relative shifts in productivity – such as those that arose in the First World War – were monitored to check that currencies were in sustainable relationships with gold and each other. Exchange controls were also introduced to ensure the system was not undermined by sudden shifts in wealth from one currency to another.
Under this well policed system war ravaged economies were transformed into the most prosperous and stable places on earth.

But war and politics were to disrupt events once more. The US of the 1960s was a very different place from that of the 1930s. A new generation had been given unprecedented expectations for prosperity and success. But by the 1960s America’s productivity and exporting prowess was in decline. And it was engaged in a costly war in Vietnam and a costly space race with the USSR. Under pressure to print money to finance election related spending, America found it could no longer sustain the dollar at fixed gold exchange rates and in 1971 the gold standard was abandoned forever. With it a golden age of sustainable post war expansion came to an end.

Worse was to come. With the gold standard and exchange controls abandoned there was no longer a break on money creation. From the North Star of gold, the world’s monetary compass was cast adrift resulting in something akin to what contributed so much to the decline of the Roman empire: printing money at a much faster rate than the economy was producing goods, resulting in rising prices, inflation, spiralling wage demands, declining productivity strikes and social discord.

Trade and prosperity were also affected as differing inflation rates caused exchange rates to fluctuate (investors moving money from high to low inflation currencies). The currencies of well-run economies – Germany, Switzerland, Japan – came out on top. A sharp correction – monetarism – occurred in the 1980s, followed by efforts to keep inflation and exchange rate fluctuations to a limit and, eventually, to create a common currency in Europe for the first time since the Roman empire, the Euro.

Now an exciting but dark and dangerous sea where computer technology, financial innovation and globalization were to defy any attempts at regulatory navigation. New forms of money – checking accounts and money market funds – supplemented hard cash.

Computer technology not only increased the complexity of money but also the speed at it could be moved and used.

The Euro dollar market, for instance, was a market for investments denominated in US dollars but held abroad. King Croesus and the Romans simply had to ensure their coinage was being printed at a stable rate and with a stable content in precious metals. Modern sovereigns must keep track of a myriad of economic, financial and regulatory features of modern money.

St. Louis Federal Reserve Bank chairman Frederic Mishkin (Mishkin, 2010) described America’s financial regulation as “a crazy quilt of multiple regulatory agencies with overlapping jurisdictions”. The onset of Derivatives – Credit Default Swaps – were a key cause of the Global Financial Crisis.

The idea was that if a bank had taken on a risky loan and someone else was – for a price – willing to absorb that risk they could do a deal. A bank could enter into a Credit Default Swap contract and in exchange for paying a regular fee to a less risk averse party, receive a guarantee that if the repayments due to it on one of its loans went bad, they would be compensated for default. But unlike two traders in ancient Greece exchanging coins for olive oil, the traders of Credit Default Swaps had never met, lived in different jurisdictions and could not really judge the quality of each other’s merchandise or money.

Pouring investment into overpriced property investments – against a backdrop of low interest rates for safer investment in government bonds – global banks created a bubble that burst in 2008. Those low interest rates were a key cause of the problem. Thirty years before tough Fed chairman Paul Volcker, Fed rates rose in a virtuous battle with inflation during the late 1970s. But from the late 1980s and for two decades they fell significantly, driving up real estate prices in the process.

So, a combination of loose money and overly complex and poorly regulated derivatives created conditions for the world’s last financial crash. Bad economic policies and human stupidity (and greed) did the rest.
This journey is only beginning and is beyond the scope of this history.

But we should beware: As American writer Mark Twain warned, even if history doesn’t exactly repeat itself, it does rhyme. Whatever form money has taken, one iron law of monetary economics holds true: no economic system can endure for long an uncontrolled expansion in sovereign debt. Already expanding rapidly pre COVID, the COVID crisis is pushing more and more governments to borrow to fund their economies at the cost of future generations. As COVID reduces the productive power of those economies and the amount of the amount of debt increases, doubtless the next major turning point in the history of money won’t be far behind.

Marc Coleman is Founder Octavian Economics Policy & Public Affairs consultancy and author of the world’s first book on the COVID crisis “An Economic Response to COVID-19. He has authored several leading bestselling books on economic recovery and is a former senior manager with IBEC, Ireland’s largest business representative body, and a former Irish Times Economics Editor, Newstalk national radio presenter and European Central Bank economist.


One particularly bad contributor was the fact that the US agencies tasked with guarding the standard of US mortgage securities – the Federal Home Loan Mortgage Corporation and Federal National Mortgage Association – were, like the Roman mint of old – doing a poor job before the last crash in keeping an eye on the “gold content” of the assets they were endorsing. The rest is history. Literally.

It was French economist Frederic Bastiat who wrote that “With the exception only of the period of the gold standard practically all governments of history have used their exclusive power to issue money to defraud and plunder the people”.

Where are we now in this story? A very exciting place as it happens. Taking the initiative out of the hands of governments, the financial technology industry (FinTech) has created a myriad of cryptocurrencies whose underlying value is, essentially, the new value proposition of the information economy – data and networks of information. From a one dimension - coin and then paper, to two and three dimensional definitions of monetary value in the last 50 years we are now moving to incredibly complex multidimensional definitions of monetary value that correspond to an increasingly material and sophisticated world in which human appetite and desire – the ultimate bedrock of what money can do (if you want it you will work to acquire anything with the proven ability to buy it).
How the UK Plans to Regulate the Rapidly Growing Cryptocurrency Industry Post Brexit

In the last two years, the UK has entirely revamped its approach to regulating cryptoasset providers and businesses. From amendments to the money laundering and terrorist financing regulations, to the introduction of an FCA registration regime and now a consultation paper on the regulatory approach to cryptoassets and stablecoins. The UK looks set to lead the global financial sector once again, this time with carefully crafted policy to encourage virtual currency adoption and innovation, while keeping consumer protection at the center of its legislative agenda.

The government is further attempting to ensure an agile approach that reflects international discussions and also has room for accommodating future financial services and payment regulation changes.

The latest consultation solicits opinion on how the UK can ensure that its cryptocurrency and stablecoin regulations are equipped to harness the ongoing advancements in technology, supporting innovation and competition while reducing risks to consumers.

Following are the key objectives of the Consultation Paper:

- **Protecting financial stability and market integrity.** This includes maintaining the appropriate regulatory standards, ensuring infrastructure is operationally resilient and that safeguards are in place to mitigate any risks to financial stability.

- **Delivering robust consumer protections.** This means ensuring consumers benefit from the same level of protection they would when other regulated instruments are being used for the same purpose (e.g. payments).

The government is further attempting to ensure an agile approach that reflects international discussions and also has room for accommodating future financial services and payment regulation changes.
The Consultation Paper outlines a series of proposed regulatory changes with an objective to intensify the scrutiny of illegal cryptocurrency uses and developing a regulatory environment that not only allows the regime to keep pace and adapt as new models or innovations emerge but also ensures that the government has the flexibility to update regulation to take account of the outcomes of ongoing international efforts to develop appropriate global regulatory standards. Following are the key steps that the government is planning to implement in order to regulation cryptocurrency uses and virtual asset service providers:

The government is proposing an approach to cryptoasset regulation under which firm requirements are designed and implemented by the independent regulators. This would involve the independent regulators using agile powers to issue rules or codes of practice, within a framework of objectives and broader considerations set by Her Majesty’s Treasury (HMT) and Parliament.

In practice, this means that HMT will not seek to specify detailed firm requirements through legislation. Instead, the government aims to define the scope of the regulatory perimeter and the objectives and principles applicable under that new regime. Reflecting this, the government is seeking views on those areas only in this consultation. The UK’s financial services regulators will consult on detailed firm requirements should the government adopt this approach.

In July 2020 the government published a Call for Evidence to support a review of the UK payments landscape. The Payments Landscape Review (PLR) is taking a holistic stocktake of the payments landscape and is considering changes needed to keep pace with new innovations. The government will set out more detail in response to the PLR call for evidence shortly.

Changes under consideration through this consultation on crypto assets are intended to support and align with the government’s broader approach to payments through the PLR.

Further in the paper, the government has also highlighted the need for both FCA and Bank of England to work together. HM Treasury anticipates both organizations would need powers over any system widely used for payments, and that their approaches will follow their respective remit. The Consultation Paper also states that the proposed regime would take relevant aspects of the UK’s put approach to e-money and payments regulation.

Conclusion

The UK’s crypto assets market is relatively small when compared to other financial hubs like the US and Singapore, but rapidly growing. With the increased adoption of cryptoassets among consumers, according to the FCA’s own consumer research in 2019 approximately 2.6 million people in the UK hold or held digital assets, and the introduction of various stablecoins, the government now recognizes the need for a robust mechanism to regulate cryptocurrency uses and its service providers across all four countries of the United Kingdom. The government also wants to ensure that the adopted approach encourages adoption and innovation to occur while putting safeguards in place to prevent the illicit use of crypto, such as money laundering and terrorist financing.
Jesse, or Aggroed as he is better known, is the CEO of Splinterlands, the most played game on blockchain. His nickname comes from a term used in gaming where one player purposely agitates a sleeping threat such as a dragon; to aggro is to invade a monster’s space and aggroed is the past tense. He has always been a gamer and uses the nickname when he is hanging out in crypto and gaming spaces.

However, he doesn’t have much time for gaming these days, he is too busy running his several businesses.

Recent statistics show that 66% of the US population over 12 years of age are gamers; this is a huge figure. 75% of them are mobile gamers!

“My business partner Matt Rosen and I are bringing our desktop game to mobile, which we trust will bring in more people. Accelerating mass adoption for crypto is all about making onboarding easier and making the engagement fun. What could be more fun – and powerful – than gaming? We’ll get more people in the space by playing games than just speculating on tokens.”

Splinterlands is a digital trading card game that uses a blockchain as the backbone, which enables players to play anytime, trade anytime, and earn every win. Originally Splinterlands was branded as Steem Monsters as it was founded on the Steem blockchain, which was best known for the blogging application Steemit.com. They moved the game to a fork of Steem called Hive in June following the hostile takeover of Steem by Tron’s Justin Sun.
recruited him to sell this philosophy and software to universities and colleges on the East Coast of America.

“I did this for ten years and it really combined my academic disciplines of theatre, education and chemistry. Teaching chemistry and teaching blockchain can be very similar. They are both big, complicated systems and you have to break them into bite-sized pieces.”

Jesse first discovered blockchain through Steemit. He had been writing and sharing articles that were critical of governments around the world on Facebook and was unceremoniously kicked off the platform for expressing his opinions – no less than five times.

“I was fuming but then a friend told me about Steemit – that it was an immutable blockchain where your voice cannot be silenced. I was hooked.”

In the recent fork, Jesse and Matt migrated Splinterlands to Hive as he felt the original principles of the blogging blockchain were more closely upheld at new platform.

“Without a blockchain it would be impossible to guarantee free speech. Once written your words are immutable on the blockchain and run on servers all over the world – no one can take down your speech. Politicians give lip service to freedom of speech, but blockchains actually deliver it. I think blockchain is a spectacular tool for ensuring free speech, enabling trade, providing transparency, and teaching peace.”

Explaining things in a simple way comes naturally to Jesse. In a previous career as a professor of chemistry he used software to help his students learn faster. His approach was both novel and successful, attracting the attention of a major academic publishing house which
“I started working on projects in this space as I believe we can build a different economic model. With our game the value of the digital assets doesn’t just reside with the company but is distributed to all the players. We all go to the same moon. I am really passionate about what we are building and honouring the value our players bring to the game.”

Splinterlands is played in two week-long seasons. At the end of the last season, they had 130,000 games played in a single day and in total almost 40 million games have been played since it launched. They also counted between 500,000 and 600,000 transactions in the game every day. The current market cap of all the cards is more than $4 million. 

“That’s a tonne of money for a game that’s just over two years old. But in reality, it’s a virtuous cycle. Gamers game, then they go and blog about how they played, they earn money from blogging, which they can use in the game itself. People also build up a following on crypto twitter by tweeting about us. We provide lots of little micro blogging rewards and the community does too. So everyone is earning, gaming, and growing the community at the same time. An incentivized community is a big part of our story of how we became the biggest game in crypto.”

“It is also important that the onboarding is seamless which attracts gamers who know nothing about crypto.”

Currently, Splinterlands is the number one DApp in the blockchain space. Jesse also points out it is a family game intended to be seen by children and adults. “One of my goals was to make this game family friendly so that I can open the packs with my young children. As a parent it’s a lot of fun watching the excitement in them, especially as some of the legendary cards have special visual and musical effects. Most of the players are probably in their 30s and 40s but I like the family aspect, and watching my kids go crazy when we flip open legendary cards.”

As players get higher ranked they can earn bigger prizes.

So, while the crypto they earned by blogging and playing can be cashed out, many players stack up on cards. Some players hold more than $30,000 in their collection which is eye watering, but Jesse and Matt introduced a twist.

Some players hold cards just to rent them out to other players, and there’s a market for it because of all the prizes that can be won. For example, the game has given out more than $145,000 in tournament prizes to players. So, there’s an entire class of players who aren’t gamers, but like to own the asset for the passive income and who hope their scarce collectible cards appreciate in value as more players come in.

“This allows talented players without much money to compete at the top of the game just by renting the powerful cards. One of my favourite stories is about a person who spent $12 renting powerful cards and managed to get into the top 50 players. Obviously he was a very talented player but he didn’t have to spend serious money to get to the top.”

There’s a mechanic in the game that allows players to combine cards to get them higher level, which grants higher stats like damage and health or unlocks new abilities like flying and stun. The players like to combine the cards, which means that the circulating supply of each edition keeps going down after we’ve sold out of them. For example, in the alpha edition there were a total of 1.5M cards in the whole set, but it’s now down below 300k, an 80% reduction in supply, because the players combined them to unlock more powerful cards.

“And if the holders grow tired of the game they can also sell them on the liquid secondary market. We’ve had players grow tired, sell everything, and buy back in later. Sometimes they get mad at us, and other
times life just doesn’t let them play for a while, so they sell.”

What’s next for Jesse and Splinterlands? Actually quite a lot. There are plans to roll out a land-based expansion. The plans are to create an empire building game along the lines of Civilization or Clash of Clans.

People will be able to buy digital land, put up digital buildings, harvest resources and monsters, and create their own set of items and spells (non-fungible tokens referred to as NFTs) that can be used in the game.

“The key difference to me in this plan is we’re allowing the players themselves to be the ones minting new cards. You can always buy more cards in trading card games, but how often were you able to craft and sell them yourself? We’ll sell the initial land, but after that the players will be responsible for crafting the new set of item and spell cards. We don’t have plans to sell those item and spell cards ourselves. It’s fully up to the players.

“That makes card creation more decentralised and truer to the nature of the blockchain.”

Jesse is also looking to expand the intellectual property and NFTs beyond what they’ve created themselves. Anything from football stars, animated princesses, comic book heroes or historical figures.

“Our program can go beyond Splinterlands. We want to help national and global brands digitize, tokenize, and monetize their intellectual property. We can help them create collectibles, sell them for USD or crypto, ship out packs that can be randomized, and then players can manage their collection and sell on a secondary market. This is where it gets really exciting as these corporations have hundreds of millions of followers and by default we’ll watch as these followers get into crypto to collect their beloved heroes. So, they’ll come for something like an animated collectible of Justin Timberlake, but they’ll stay for the life-changing crypto experience that will alter your very DNA.”

And that’s why Jesse is too busy to play games anymore.
Society and Law has reached a check point where the new digital world is evolving so fast, that it is almost beyond the current laws and banking practises. Let’s take a look at fraud in Faster Payments, UK’s instant payment initiative, which is being replicated in over 50 countries, and soon to become available for cross border payments.

Faster payments fraud totalled £330 million in 2019, an annual increase of 30% over 2018. In addition, annual bank investigation costs are estimated at £125 million. This costs the banking industry £9 per year per active bank account. Given the pandemic and the added acceleration by society to digital, a further increase of 30% in 2020 in faster payments fraud seems probable, increasing the cost to active bank accounts to £12 per year. This makes the practice of ‘free bank accounts’ even more challenging. That is if the banks absorb the total fraud cost. At this time, only 41 percent is being reimbursed. The majority of fraud write offs remain in limbo causing at least 100,000 banks’ customers significant emotional and financial stress.

Fraudsters use a combination of techniques including text, email, too good to be true web sites, offers and telephone calls to create emotional manipulation on the owner of the bank account. Technology enables the fraudsters to operate at large scale, sending thousands of requests to people in Covid isolation; then cold calling to find the vulnerable who are maybe feeling isolated and lonely and applying psychological undermining to get what they want. Website scams are also now easier to fall for than ever. Their goal being to have the owner of the bank account move money to the fraudsters’ bank account using instant payments. All while working from home.

Corporate frauds are 30x higher than the average consumer’s loss of £3,600. No wonder the corporations and SMEs are under constant bombardment from fraudsters outside and inside the company.

Fraud is corrosive to society, individuals and businesses and the Government and banks have initiated programmes to help people endeavour to defend themselves against fraud:

- The Take Five Government Campaign encourages bank customers to take and ensure they know who they are paying; but few people actually check internet T’s and C’s.
- Banks themselves provide their own warnings and often request the client to tick accept before moving to the next step. The regulators have noted many bank warnings are vague and ineffective.
- Banks that have Confirmation of Payee, (6 out of 32 direct faster payment banks) check payee account name, sort code and account number before giving approval.
- Banks operating under the Voluntary Code (12 banks) have shown little consistency towards the rules with many fraud reimbursement being inappropriately declined.
A patchwork of generic warnings, individual bank defences and a tendency for the bank to blame the client is ideal for the fraudster. They target the areas of least resistance first.

Banks and clients need to have a clearer, consistent focus on the fraud warnings, responsibilities and next steps. Using technology, artificial intelligence, cloud and APIs can detect and prevent the fraud before the money leaves the client’s bank account.

The point of no return is when the money leaves the bank account. As one banker noted, “once the money has gone, it’s gone!” Recovery can be measured in very low percentages.

There are two parties involved, the client and the bank. Today, the client prepares the payment off the banking app or payment system, sends to the bank and the bank’s computers checks and notes the payment has been arranged. The money is transferred up to two hours later.

Prior to the money being moved by the bank (or trusted third party) there needs to be a risk assessment completed in seconds. Then the high-level risk transactions need the client and the bank to agree on next steps before any money leaves the account.

University research has shown that 99.6 percent of frauds can be detected in seconds. That is the £330 million in fraud could be reduced to less than £3 million. In 2014, the Digital Policy Alliance using historical faster payments data showed 70 percent of frauds can be identified before payment which would reduce fraud to £100 million.

Technology has improved tremendously over the last seven years. Society, laws, banks and bank clients need to unify against the fraudsters by offering a transparent view of the safety of the instant payment.

**Real time, cloud platform for faster payments**

All Banks can supplement their fraud activities, even those banks outside the Confirmation of Payee and Voluntary Code, by using the cloud fraud risk detection/prevention platform.

The platform, using APIs, is designed to minimum interference to the existing IT landscape:

- reviewing the transaction in real time by using AI to identify the high-risk items
- providing a course of action with clear responsibilities for the customer and bank
- using bank information gathered from legacy systems to safeguard clients
- enabling all banks offering faster payments to be proactive against fraudsters

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**Faster Payments transactions**

- **Example of regular payment**
  - Proposed transaction
  - Suspicious payment- Requiring investigation or additional validation checks
  - Non-Regular payment- Investigated or additional validation check
  - Appear to be a non-suspicious or regular payment

**Highly suspicious**

- Transactions data
  - Identifying Fraud at source
  - Transactional analysis (milliseconds)
  - One Service provided by two systems (Bank and cloud linked through APIs).
  - Enriched data sources held in cloud captures up to 99% of fraudulent transactions.
  - By fighting fraud with the client additional revenues can be generated as trust is enhanced.
  - Provide management with up to the moment information
Examples of the impact on consumers and corporates/SMEs are:

**Consumers**
The bank runs through its usual checks and now with the risk platform provides a proactive, holistic view of the payment process by:

- Identifying those transactions with high probability of being a fraud
  - These payments are revealed through analytics in real time
    - The bank and client can see the items and can take action
  - Benefits are
    - money has not moved from the account
    - immediate awareness of an active attack

**Corporates/SMEs**
To counter payment fraud, banks, in the past, often insisted on two authorised signatures on a corporate cheque. Banks can now

- Have another person to reconfirm high-risk transactions
  - Reducing the threat posed by a single insider (50% of fraud is by an insider)
  - Benefit
    - 42% would switch providers for greater security

**Key changes at the client:**
The electronic banking system responds in real time on the risk of fraud on the transaction and with a dashboard for both to view. (Minimum changes highlighted in yellow)

**Key changes at the bank:**
Initially an increase in false positives (these are transactions that look like fraud but are not) then a reduction as AI, uses increased volumes of historic data, moves the accuracy towards 99%. The addition of workload to ensuring fraud detection is completed in real time and communications of the high-risk transactions are shown across the bank regardless of silo.
Collaboration with other banks (bi-lateral agreements with anonymised data)

As a second bank uses the platform, with both banks’ permission, the payment transactions across the two accounts, can be seen in detail. This gives a complete view of the accounts in both banks and immediately highlights anomalies. The data is anomalous and in compliance with Information Commissioner’s Office on data protection. In using bi-lateral agreements, with trusted third-parties, banks gain greater insight into the fraudsters and their networks.

Under FCA regulations banks are expected to know their customers and not provide bank accounts for criminal activities. There are 51 million active UK bank accounts and in 2019 635,000 were identified as SARs (Suspicious Activity Reports) and sent to the Home Office.

Cryptocurrency

For the fraudster, cryptocurrencies are additional opportunities and probably more enticing than fiat currencies as they are new to us all. The fraudsters are usually the first to adapt to any new form of payment asset class. For example, the Chinese, inventors of paper money, soon noticed counterfeiting was a problem. They added a deterrent and an incentive printed on the bank note: forgers will be decapitated and those given information to the arrest of forgers will be rewarded.

We should tackle the lack of deterrents against the digital fraudster as instant faster payments is such a fundamental change from the existing payment practises. The Chinese could teach use something and while their approach was clear and focused it is not so easily enforced digitally.
Plotting an insolvency: turning a weakness into a strength

by James Burnie

Given that the core driver behind businesses generally is generating revenue, it seems counter-intuitive for firms to focus on what happens in the event of their insolvency. However, we are seeing a trend towards some firms actively making the way they handle insolvency into becoming part of the sell for their business services.

The drivers for this are two-fold. Firstly, there is greater engagement between cryptoasset firms and the Financial Conduct Authority. Crypto exchanges in the UK are generally required to be registered with the FCA for AML purposes, and as part of their business plan the FCA will expect a proper assessment of the risks of their business, including an assessment of their solvency risk. Similarly, clients of exchanges may themselves have to register with the FCA for AML purposes, in which case they should expect to identify areas of risk to their business, which would include the counterparty risk of using exchanges. Secondly, with the recent economic impact of COVID, the concept of insolvency for any counterparty is seen as a tangible risk, and so addressing how this has been mitigated simply makes good commercial sense.

Reducing insolvency risk for clients

When considering the potential for insolvency, it is tempting to think initially only of balance sheets. However, this misses the point – insolvency is not about how big an institution is, rather it is the ability of an institution to pay debts as they fall due. As such, even large institutions risk insolvency if they do not have the necessary liquidity to meet their debts.

For users, the issue of insolvency revolves around the users’ ability to obtain their cryptoassets / fiat money from the exchange in the event the exchange goes insolvent. The act of exchanging assets is not itself therefore the core issue, as exchanges generally only execute when there are sufficient assets for the trade. Rather, the key question is how the cryptoassets are safeguarded when they are held in connection with a trade.

As shows by the Cubits administration, it can be dangerous to leave this simply as a matter of faith, rather it often makes sense to bring in independent oversight, in the form of an independent custodian who provides safeguarding. The benefit of this is that, in the event of either the exchange or the custodian being a bad actor, it is much more likely that the other will pick up on this and bring it to the user’s attention. For the remainder of this section, in recognition of the value of an independent custodian, we will refer to the entity holding cryptoassets as the “custodian”, however the points made also apply if it is the exchange which also provides the custody function.

Analysing the safeguarding of cryptoassets splits into considering how assets are protected legally, operationally and from a security perspective. To explain this, we set out below illustrative examples of how this has been dealt with by a range of custodians. Please note however that as there are multiple ways of dealing with the issues raised, it is important to understand the unique features of each custodian, and we do not express any opinion in this article as to whether one solution is superior to another.
The legal analysis revolves around who has legal title to the cryptoassets. If the custodian takes legal ownership of the cryptoassets acting as principal, then those assets will likely form part of the custodian’s estate. In the event of an insolvency, therefore, there is a risk that the cryptoassets are deemed part of the custodian’s estate, meaning that users holding cryptoassets with the custodian are treated simply as unsecured creditors of the custodian, severely reducing the amount they will be able to receive in the event of an insolvency. The usual solution here is for custodians to make clear in their documentation that they are holding assets as agent for the user. However, additional protection is provided by setting up a trust arrangement, under which cryptoassets are held on behalf of users. Setting up a trust is relatively easy, as put simply it involves meeting three requirements: (i) certainty of intention to create a trust, which is generally satisfied by entering a trust deed; (ii) certainty of subject matter, which is satisfied by being clear which cryptoassets are subject to the trust, for example by placing them into a separate account from other assets held outside the trust; and (iii) certainty of objects, which is satisfied by being clear who the cryptoassets are being held for. We are seeing increasing use of trust structures by clients who are arranging safeguarding of cryptoassets, under which arrangement the person arranging custody informs the custodian that the assets are held on trust. In addition, there is no reason why a custodian cannot itself declare the trust, as part of keeping assets held on behalf of its users’ bankruptcy remote, and this is the approach adopted for example by Koine Money Ltd.
Operationally, the key issue is control of the cryptoassets: put simply, whether someone has legal rights to cryptoassets is academic if in practice those cryptoassets have gone. “Control” here really refers to the ability to update the blockchain using the relevant private keys. This can be done by splitting the private key into three pieces (called “shards”), a technique used for example by Copper who then puts one shard under the control of the user, one with Copper and one with a trusted third party. As 2 / 3 shards are needed to access the blockchain, Copper is prevented from being able to unilaterally move cryptoassets, as the consent of either the user or the trusted third party is required. The purpose of this design is to remove the risk of Copper being able to unilaterally acquire client assets.

Security considerations revolve around the need to stop bad actors stealing cryptoassets, and to prevent this requires strong security. The custodian should be happy to provide details of how assets are kept secure. Trustology, for example, uses an automated approach managing assets within programmable HSMs that are stored in secure data centres with highly-available multiple encrypted backups. This approach enabled them to be one of the first crypto custodians to be able to convince an insurer to underwrite their custody solution.

James Burnie, Partner, gunnercooke
In this article we examine the unique challenges facing the Joint Liquidators of Cubits, the first major UK Crypto-Currency Exchange to enter formal insolvency, following €35 million loss by Allister Manson and Nicholas Parton from Opus Restructuring & Insolvency.
In this article we examine the unique challenges facing the Joint Liquidators of Cubits, the first major UK Crypto-Currency Exchange to enter formal insolvency, following a catastrophic €35 million loss.
The price of Bitcoin (“BTC”) officially exceeded the $50,000 mark this week: over the past decade, BTC has repeatedly defied its doubters and, despite a string of high profile setbacks, from Mt Gox in 2014 to Quadriga in 2019, nothing has so far managed to derail it.

As most readers will know, the simplest way to acquire BTC and other crypto is to buy it on a crypto exchange, such as Coinbase or Binance. Once you’ve passed AML and KYC checks, you will be allowed to deposit cash at your chosen exchange and the exchange will convert that into BTC (or, another crypto-currency of your choice). Most exchanges also offer to store your crypto for you in a “personal” wallet. (More of that, later). Some exchanges also allow “crypto traders” to buy and sell at speed and with relative ease, largely in response to the significant rise in price volatility of crypto as they become more mainstream.

**The growth of Cubits**

Dooga Ltd, trading as Cubits, was a BTC Exchange, Trading Platform and Storage Facility – and became one of the fastest-growing platforms in Europe, following its launch in 2015. Its clients comprised both corporates and individuals. The trading platform allowed customers to buy, sell, trade and store BTC.

However, not content simply to grapple with the risk profile and volatility of BTC itself, Cubits decided to specialise in catering for the online gambling industry. Cubits provided a very fast and smooth BTC conversion service to up to 500 different online gambling platforms, enabling their clients to quickly convert their BTC into cash, for betting purposes.

Cubits was young, dynamic and operating in a rapidly evolving industry. Unfortunately, the world of crypto-currency can be a mine-field and its unregulated status facilitated a less than robust approach to the inherent risks.

By mid-December 2017, when the BTC price was £$20,000 and trading volumes were at record highs, Cubits was profiting handsomely from the 100,000 individual clients and 5,000 corporate clients that it was servicing.

**The alleged fraud**

However, in February 2018, the accounts of three Chinese users were compromised. The three customers had between them, in the days leading up to the alleged fraud, amassed €27m worth of BTC in their accounts. Their trading patterns were atypical, and they had not initiated the 2-Factor Authentication security protocol recommended by Cubits. They
then reported that their accounts had been hacked and their passwords changed immediately prior to the withdrawal of c.2,800 BTC.

These three Chinese customers had purportedly transferred the Chinese Yuan to purchase their BTC to Pay Secure Online Limited, a third-party payment service provider (“PSP”), which was Cubits’ main PSP in Asia. The PSP, on hearing the allegations of the customers being hacked, allegedly returned the funds to them. So, the money for the BTC was never remitted to Cubits and, worse still, Cubits’ BTC had been withdrawn from the exchange.

The PSP subsequently refused to honour the BTC purchased and also reneged on payment of some €7m of outstanding amounts owed to Cubits for unrelated, prior BTC transactions. Faced with serious liquidity issues, Cubits’ management employed forensic investigators and local lawyers, to help them recover the missing assets.

The results were fruitless and only served to worsen the company’s liquidity problems. In December 2018, some ten months later, Opus were appointed Administrators (now Liquidators) and our Forensic team was instructed to conduct a forensic investigation into the fraud.

Forensic challenges in the Liquidation of a Crypto-currency exchange

**What do you do when you’re faced with an alleged fraud, with €35m worth of BTC having been lost, former staff having scattered, and certain key management not co-operating?**

- Firstly, we set up communication channels for third parties to provide us with relevant information, whilst giving them the option to remain anonymous;
- Secondly, we quickly pieced together a picture of those occupying key positions within the business, identifying those who were uncooperative and those aligned to them;
- Finally, we worked closely with helpful former employees to gather as much information as possible about the inner workings of the business.

**BTC tracing – where to start?**

Frustrated by the lack of cooperation from certain former staff and management, who had not given the Liquidators access to the transactional records or the keys to the Company’s crypto wallets, the forensic team sought to piece together the transactional history of the Cubits’ wallet from public sources.

The team was able to verify BTC transactions from the Blockchain (a global, centralised repository of all historic BTC transactions). However, without the customers’ identifying information, it was not possible to decipher which transactions belonged to which customers. Our forensic team hired several specialist cyber investigators to work hand-in-hand with our own forensic accountants. Using proprietary software, the team traced the stolen BTC in respect of several frauds committed against Cubits, and traced BTC which left the wallet in the days prior to the appointment of the Administrators.

The forensics team has encountered a disproportionate number of BTC transactions being sent through “tumblers/mixers” – essentially, money laundering services for BTC – to exchanges. Exchanges are, on the whole, not easy to communicate with and some actively encourage an aura of mystique. This type of trading can attract an affluent customer, but not necessarily the type that would pass your KYC compliance tests!

The forensic team collaborated with the Liquidators’ legal advisors and law enforcement agencies, issuing requests to the exchanges to reveal the identity of the account holders receiving the stolen BTC.

The exchanges also revealed if the account holder had any funds remaining, or if the BTC had been transferred onwards. If the latter, the forensic team resumed the tracing until it hit another exchange/known account; or, if the BTC has been converted into traditional currency, they began the more common asset tracing and recovery exercises.
Lack of transactional data. Data held on servers, but no-one willing or able to provide access...

One helpful factor in a situation of insolvency is that the company’s former suppliers still want to receive payment. For example, as we had no accurate information as to where company’s servers were located and no-one would provide this information, we simply waited for the company’s former suppliers to contact us to chase their debts. In that way, we were able to recover key data which helped us proceed with the investigation and recovery of assets.

Similarly, we were able to identify over 30 different bank account-providers, worldwide, including in some in territories where the Company had never had any customers. The Liquidators have been able to recover funds from accounts based all over the world and the process is ongoing.

Liquidators have fairly wide powers granted by the Insolvency Act 1986 in order to compel third parties to assist them, either in the provision of information, or in the recovery of assets.

Other Bitcoin challenges

One interesting feature of Cubits’ BTC investors, which seems to be a feature of other insolvencies involving cryptocurrency, is their attachment to what they perceive to be “their” BTC. Possibly due to the highly traceable nature of the asset class, the majority of the individual creditors who have lost BTC, talk in terms of getting their BTC back, rather than receiving a monetary distribution. Of course, this is not necessarily always possible under insolvency legislation – the value of claims for lost BTC in previous insolvencies has been calculated using the BTC price at the date of Administration and creditors have been eligible for a monetary distribution for that sum, rather than a return of their BTC.

Indeed the precise nature of BTC is still yet to be settled by the UK Courts: under English law, BTC is neither property that a party can take physical possession of, nor does it create a property right that can only be obtained or enforced through legal action because it is intangible in nature, being either information or data, and numerous English authorities have affirmed that information or data is not property.

However, the recent case, of Liam David Robertson v Persons Unknown, is helpful in that the Commercial Court granted an asset preservation order over more than GBP 1 million of BTC stolen in a spear-phishing attack, clearly deeming the BTC to be assets. Indeed, in an insolvency context, BTC is more likely to fall within a debtor’s property, as the definition of property in insolvency is extremely wide; however, it is important to stress that its status has not yet been properly defined.

The Singaporean judgment in B2C2 v Quoine Pty (2019) established that proprietary claims may be made against BTC, so it will be interesting to see how this plays out in the context of Cubits and more widely.

Insolvency learning points

1. It is absolutely essential to get to grips with the technical aspects of these types of assignment, as early as possible, using external consultants if necessary: to use the jargon of the tech world, these types of business are at the “bleeding edge” of technology and modern techniques for identifying and security assets need to be applied;

2. With that in mind, ensuring that you have a team that understands the systems and is able to access them is of critical importance: obtain and update online bank details, log-ins and passwords, access codes and secret keys on Day One;

3. Be mindful of the potential value of IP and software, particularly in cutting-edge industries. Employ advanced techniques to ensure the IP is captured and retained;

4. Actively seek out intelligence to identify potential strategic allies and then work to develop positive relationships with the contacts identified.

5. Be mindful that the very status of BTC as an asset or property has still yet to be comprehensively defined by the English Courts.
As crypto continues its march towards mainstream acceptance, the restructuring profession is likely to face more and more of these types of cases and we hope that the advanced asset tracing and recovery techniques that we have employed pave the way for others to follow. It goes without saying that the Opus team would be happy to assist anyone in the crypto (and wider fintech) industry who feels that our expertise and experience would be of assistance.

Contact us at Opus Restructuring and Insolvency at Allister.manson@opusllp.com or nicholas.parton@opusllp.com to find out more.
The UK's no. 1 Rated Tech Networking Events in Crypto, Blockchain, AI, Sustainability and Payments. Over Curry and virtual.
Copy of Crypto Curry Club Networking - DeFi. register here 🦉

Crypto Curry Club virtual networking event on DeFi- networking and debate on DeFi. We’ll keep this small and personal. Everyone will have the chance to introduce themselves. We look forward to seeing you there :)

Crypto Curry Club Networking - Crypto. register here 🦉

Crypto Curry Club virtual networking on UX (what’s next and what’s needed) in crypto wallets and exchanges. We’ll keep this small and personal - max 10 people so everyone has the chance to introduce themselves and speak. We look forward to seeing you there :)
Wed, 10
16:00 – 17:00 GMT
Location
Online Event
FREE

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Vertical Farming - the history and future with Lite & Fog. *register here* 🤝

Martin will share a summary of the last 10 years of indoor agriculture from Japan to Ohio.
Martin will go into: What are the best systems? What about energy consumption? Why not a greenhouse? Why the fuss? Isn’t it all too expensive and isn’t the sun free?. The usual facts about there soon being about 10 billion people on the planet, some ideas and practicalities on how on earth we can feed all these people, and vertical farming has to offer Lite+Fog is a Berlin StartUp, combining early-stage agri-tech innovations with the latest findings of research institutes. Sprinkled with an artistic approach to aesthetically please and push the imagination of one of the oldest and static industries there is. Rest assured, that this has nothing to do with the “good old” farm you might imagin but more with the company’s motto: forever early!.

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Climbing for the greater good - tracking climate change up mountains. *register here* 🤝

John All - mountaineer and scientist and co-author of Icefall: Adventures at the Wild Edges of Our Dangerous, Changing Planet and Director of the American Climber Science Program famously pulled himself out of a 70-Foot crevasse in the Himalayas with 15 broken bones and as a career risks his life to study how climate change affects mountains. Called a ‘badass for science’ John is a scientist who uses his skills to reach places most people fear to tread, in order to bring back data that is helping us understand how climate change is altering the world’s highest peaks. John witnesses first hand the changes happening to our mountains due to waste and climate change and will share some ideas about climbing for the greater good - how mountain climbers can foster sustainability in communities around the world and about some of the studies they are doing up mountains to track climate change. John is an incredible, interesting guy and this will be an incredible one to join for anyone as excited by mountains and climbing! Or just by nature and science or amazing all-round stories. We make these as fun and interactive as zoom allows so come ready with your questions.
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<td>2nd Workshop on Coordination of Decentralized Finance (CoDecFin) 2021</td>
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<td>8</td>
<td>International Conference on Blockchain for Internet of Things (ICBIOT)</td>
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<td>8</td>
<td>Mozilla Festival (MozFest)</td>
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<td>Annual Pharma Supply-Chain and Security World 2021 Supply-Chain, Drug Serialization and Anti-Counterfeiting Conference and Expo</td>
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<td>9-13</td>
<td>Blockchain Week Rome 2021</td>
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<td>11</td>
<td>International Conference on Blockchain Technologies (ICBT)</td>
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<td>International Conference on Blockchain for Industry (ICBI)</td>
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<td>16-20</td>
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<td>20-22</td>
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<td>22-23</td>
<td>Global Clinical Trials Connect 2021</td>
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<td>22-28</td>
<td>Asia Crypto Week</td>
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Fifth Era compiled a list of resources have made available to all to learn all about crypto and blockchain - we hope they bring value!
Macro Context: The Era of Unprecedented Innovation that we are Living Through

- Our free ebook, “The Fifth Era” and our webinar, “The Fifth Era”

Introduction to Bitcoin

- Satoshi Nakamoto’s “Original Bitcoin whitepaper”
- Upfolio’s “Bitcoin Explained” for a simple illustrative overview
- Matt Huang’s “Bitcoin for the Open-Minded Skeptic”

Why Scarce Monies Matter

- Castle Island’s whitepaper “Cryptodollars: The Story So Far”.
- Alden’s “7 Misconceptions About Bitcoin” and “The Fraying of the US Global Currency Reserve System”
- Paul Tudor Jones’ May 2020 Letter “The Great Monetary Inflation”

Investing in Bitcoin and Crypto

- CFA special paper with Bitwise, “CFA guide to Bitcoin, Blockchain and Cryptocurrencies”
- Fidelity’s “Bitcoin Investment Thesis”
- Niall Ferguson’s “Bitcoin Is Winning the Covid-19 Monetary Revolution”
- Michael Saylor of Microstrategy on “The Big Long”
- Major holders (treasuries) of Bitcoin at Bitcoin Treasuries
- John Pfeffer’s “An Institutional Investor’s Take on Cryptoassets”
- Ray Dalio and “What I Think About Bitcoin”

Essentials for Investing In Blockchain Ventures

- Our webinar “Blockchain Coinvestors Investment Thesis”
- Our webinar “Options for Investing in Blockchain and Crypto”

Digital Assets and Decentralized Finance (DeFi)

- Anthony Lewis’s “Gentle Introduction to Ethereum”
- “Crypto Tokens: A Breakthrough in Open Network Design” by Chris Dixon
- Kearney and Ashurst on “The Securities Industry: A Digital Future Beckons”
- “Tokenized Assets: The Next Generation of Securities” with Carlos Domingo, CEO of Securitize
- Bain & Company on “Digital Assets”
- Coinbase’s “Beginners Guide to Decentralized Finance”

Podcasts

- On The Brink with Castle Island’s Matt Walsh and Nic Carter
- Unchained with Laura Shin
- The Breakdown with Nathaniel Whittemore
- What Bitcoin Did with Peter McCormack

Newsletters

- Hunter Horsley and Matt Hougan at Bitwise
- Bart and Brad Stephens and Spencer Bogart at Blockchain Capital
- Lou Kerner at Blockchain Coinvestors & CryptoOracle
- Matt Walsh and Nic Carter at Castle Island
- Mati Greenspan at Quantum Economics

Books For Those With More Time

- Digital Gold by Nathaniel Popper is perhaps the best historical synthesis
- Blockchain Competitive Advantage is our own blockchain investment thesis in the context of the Fifth Era
- The Bitcoin Standard by economist Saifedean Ammous provides thoughtful analysis
- Our own The Ministry of Bitcoin is just for fun
blockchainindustryreview

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cryptocurrencyclub.com

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