THE

·BLOCKSHOW EDITION·

NOV, 2017

COINTELEGRAPH

IS BITCOIN'S VOLATILITY SUCH A BAD THING?

A BRIEF HISTORY OF BLOCKCHAIN REGULATIONS

TEZOS A DRAMATIC PLAY IN THREE ACTS

HOW TO READ SMART CONTRACT

DON'T FEAR FORKS

PIRATE MINING AFFECTS MORE AND MORE USERS

BLOCKCHAIN ORACLES EXPLAINED

TOP UNIVERSITIES PROVIDING BLOCKCHAIN COURSES

ASIA WELCOMES BLOCKSHOW

BLOCK SHOW

Lucky you! You are among the first to be reading this exclusive edition of The Cointelegraph, created especially for BlockShow Asia guests.

The Cointelegraph has always been your route into the blockchain and we are happy to provide an offline window to the global blockchain world, making every BlockShow event valuable and exciting for you.

ADDY CREZEE

Mentor at nexussquared; CEO at BlockShow by The Cointelegraph

EXHIBITORS

UNIQ

ICOBOX

NAGA

Baikalika

NEBULAS
Decentralized Search Framework

Movieschain by tvzavr

LENDEX

bluzelle

ModulTrade
The Freedom To Trade

NKD TECHNOLOGIES

iZiing

CCA

EVEN

minthealth

KOMODO

COINTED
THE FUTURE OF MONEY

exch.one

CHAINTRADE

ENJIN COIN
SMART CRYPTOCURRENCY FOR GAMING

CRYPTONOMOS
Connecting ICOs & Token Buyers

DateCoin

ENERGO

easyMINE

Changelly

EIRA CUBE

ATN

Genaro Network

B2BROKER

ARVZIO
VR world
ARound us

SPONSORS

QTUM

Achain

EOS

BITCAR

iExec

TravelChain

vechain

RION

WAVES

BNKTOTHEFUTURE.COM

GBX
GIBRALTAR BLOCKCHAIN EXCHANGE

PARTNERS

COIN NEWS

CRYPTOCENTRAL.NET

FINTECH SINGAPORE
fintechnews.sg

AICoin

bits.media

ACCESS

BLOCKCHAIN BUSINESS BOARD B3

區塊客 blockcast.it

Blockgeeks

DC DECENT

NEWSBTC

Changelly

FinTech Connector

BTCMANAGER

WACHSMAN PR

Gaeks in Cambodia

IF InvestFuture

Financial IT
Innovations in FinTech

DailySocial.id

巴比特

THE BLOCKCHAIN ACADEMY

THE BITCOIN FOUNDATION

SUSS
SINGAPORE UNIVERSITY OF SOCIAL SCIENCES

Priority Token

SINGAPORE FINTECH ASSOCIATION

BTC-ECHO

THE COINTELEGRAPH

BLOCKSHOW EDITION

BITCOIN

HAS BARELY REACHED 1%

OF ITS POTENTIAL

- I WILL HAVE ONE BIG MAC, LARGE FRENCH FRIES AND A DIET COKE, PLEASE

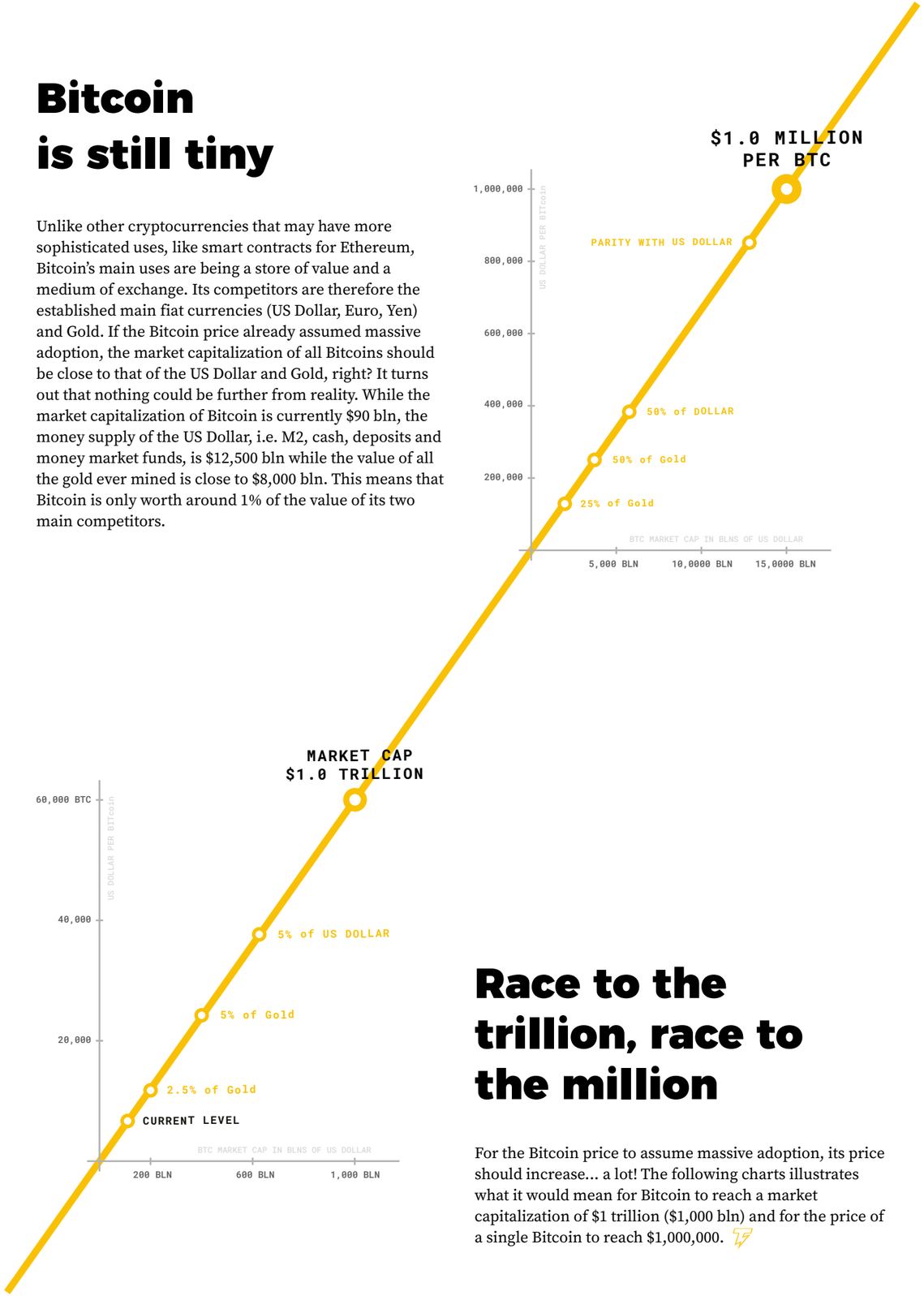
- SURE, 12 BITS, PLEASE

Will there ever be such an exchange or is this just science fiction? In this hypothetical world, 1 Bitcoin is worth $1,000,000, 1 bit is worth $1.00 (1 millionth of a Bitcoin) and 1 Satoshi is worth 1 US Cent. There is no consensus on what the value of one Bitcoin is or should be. The spectrum of opinions ranges from Jamie Dimon, CEO of JP Morgan, who thinks it is a fraud and therefore worthless, to Bitcoin maximalists who believe that the sky's the limit.

Somewhere in the middle of that, Mohamed El-Erian recently said that “The current prices of Bitcoin assume massive adoption, which is not going to happen." He went on to say that Bitcoin should only be worth “a third” of its value at the time - $4,000. Mohamed El-Erian is a smart guy, he is the former billionaire CEO of PIMCO and former IMF economist, could he be right? Has Bitcoin already peaked?

Bitcoin is still tiny

Unlike other cryptocurrencies that may have more sophisticated uses, like smart contracts for Ethereum, Bitcoin’s main uses are being a store of value and a medium of exchange. Its competitors are therefore the established main fiat currencies (US Dollar, Euro, Yen) and Gold. If the Bitcoin price already assumed massive adoption, the market capitalization of all Bitcoins should be close to that of the US Dollar and Gold, right? It turns out that nothing could be further from reality. While the market capitalization of Bitcoin is currently $90 bln, the money supply of the US Dollar, i.e. M2, cash, deposits and money market funds, is $12,500 bln while the value of all the gold ever mined is close to $8,000 bln. This means that Bitcoin is only worth around 1% of the value of its two main competitors.



Race to the trillion, race to the million

For the Bitcoin price to assume massive adoption, its price should increase... a lot! The following charts illustrates what it would mean for Bitcoin to reach a market capitalization of $1 trillion ($1,000 bln) and for the price of a single Bitcoin to reach $1,000,000.

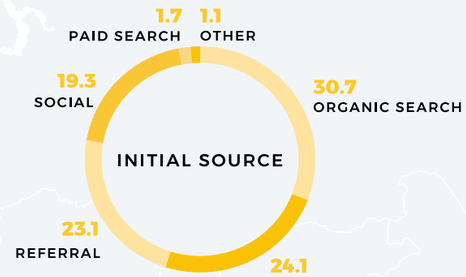
STATS

THE COINTELEGRAPH

208 966 000
PAGE VIEWS PER MONTH

2:18
AVERAGE SESSION DURATION

13
ARTICLES PER DAY



28%
EUROPE

46%
AMERICAS

19%
ASIA

4%
AFRICA

3%
OCEANIA

25 000
SUBSCRIBED TO DAILY NEWSLETTER

25 000
AVERAGE VIEWS PER ARTICLE

13 200 000
TOTAL AMOUNT OF VISITORS PER MONTH

IS BITCOIN'S VOLATILITY SUCH A BAD THING?

One reason used by Bitcoin opponents, including Jamie Dimon, to attack it is its high volatility. Is high volatility such a bad thing for Bitcoin after all?

One reason used by Bitcoin opponents, including Jamie Dimon, to attack it is its high volatility. Is high volatility such a bad thing for Bitcoin after all?

This illustration assumes that 16.5 million Bitcoins, the number of Bitcoins mined to date, are available. In reality, the pool of Bitcoins available is most likely much smaller. Hundreds of thousands or even millions of Bitcoins may have been lost in the early years, at a time when Bitcoins were basically worthless. Satoshi Nakamoto - Bitcoin's enigmatic founder - never moved any of his one million Bitcoins (now worth more than $5 bln). So either he is the greatest holder ever, or he disappeared and his private keys are gone with him.

The head of the IMF said two weeks ago to a room full of central bankers that they should not "dismiss" cryptocurrencies as they may very well give central banks "a run for their money". If this is indeed the case, then forget the price of one Bitcoin, the number that everyone will be quoting very soon will be the price of one bit.

Highly volatile asset class

One reason why traditional investors have shunned Bitcoin is that its price has swung from one extreme to another. Its price increased from around $1,000 at the beginning of the year to a peak of over $5,000 in September 2017 (gain of +400 percent), before crashing to a low of $3,000 (-40 percent from its peak). Even this represents an improvement from the early days when Bitcoin price crashed from $32 to $2 in 2011 (a drop of 94 percent). There have been periods of low volatility, but these have been few and far between. Bitcoin may be called digital gold, but in terms of volatility, it looks more like stock markets on steroids.

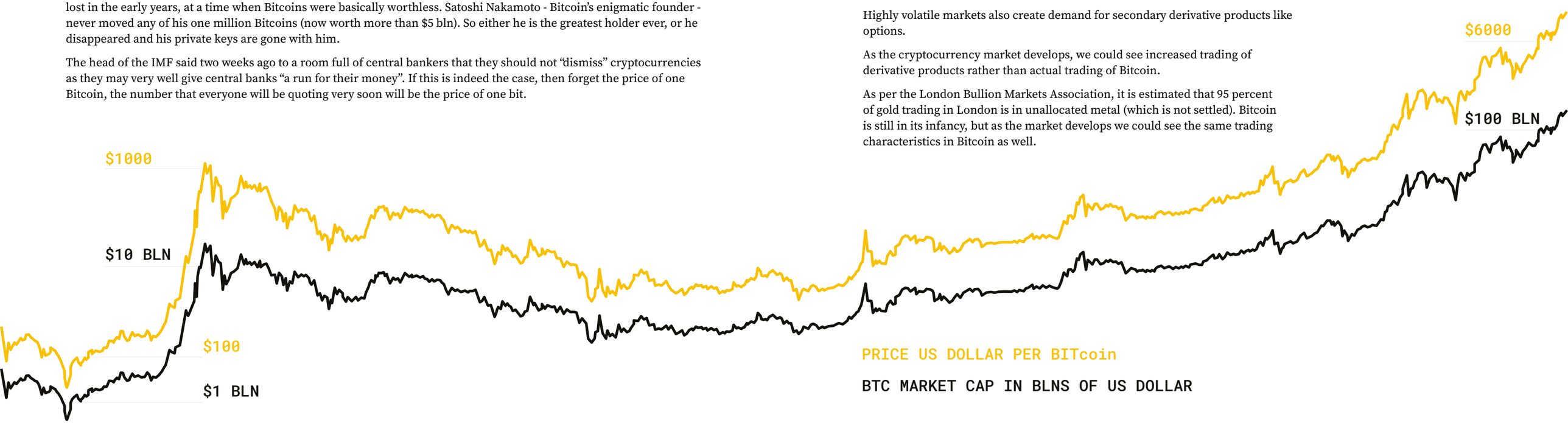
Volatility is an opportunity for traders

For day traders and short-term investors, volatility presents an opportunity for making profits. By correctly predicting the short-term trends in Bitcoin, traders can make substantial profits; much more than investors who have a buy-and-hold strategy.

Highly volatile markets also create demand for secondary derivative products like options.

As the cryptocurrency market develops, we could see increased trading of derivative products rather than actual trading of Bitcoin.

As per the London Bullion Markets Association, it is estimated that 95 percent of gold trading in London is in unallocated metal (which is not settled). Bitcoin is still in its infancy, but as the market develops we could see the same trading characteristics in Bitcoin as well.



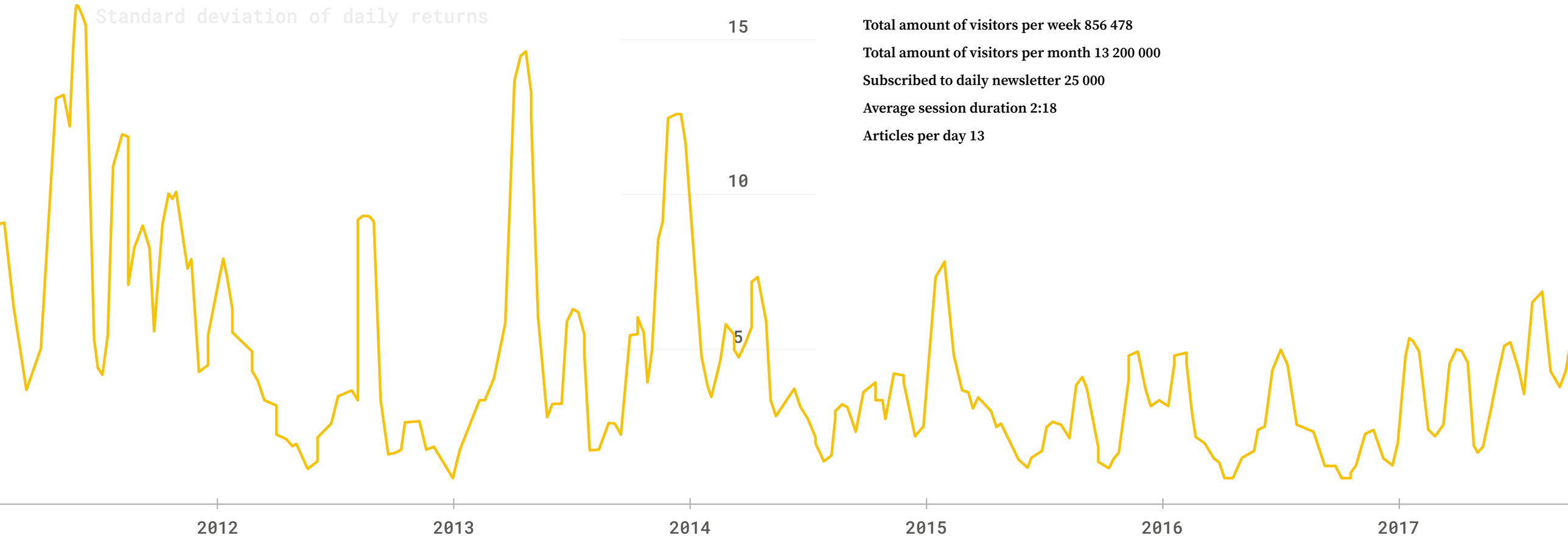
Bane for merchants

Merchants, no matter how tech-savvy they are, hesitate to accept Bitcoins for their goods and services. Their core competence lies in providing goods and services, not in managing Bitcoin's volatility.

They work on thin margins and hate even the one to two percent transaction fees imposed by credit card companies.

The Bitcoin price can move substantially between the time they accept Bitcoins from customers, and they sell these Bitcoins in exchange for their local currency. This price movement can wipe out their entire profitability.

This is the reason why most merchants accept Bitcoin only through payment processors like Coinbase, which removes the risk associated with holding Bitcoins. After all, merchants have to pay their bills using fiat currencies, not Bitcoin.



Volatility inevitable during growth

Bitcoin is a relatively new asset class. Although the level of awareness about Bitcoin among the general population has increased, only a small proportion of them hold significant amount of Bitcoins.

Moreover, institutional investors have largely avoided Bitcoin, given its unregulated nature and the risks associated with it.

As Bitcoin adoption increases and demand increases, its price can move up rapidly.

Similarly, when there is negative news about Bitcoin, like the Chinese shutting down cryptocurrency exchanges, some of the holders of Bitcoin will sell and its price can crash rapidly.

Until the holding of Bitcoin becomes widely distributed and its liquidity improves substantially, we will see substantial volatility in Bitcoin price.

CoinTelegraph Analytics

Total amount of visitors per week 856 478

Total amount of visitors per month 13 200 000

Subscribed to daily newsletter 25 000

Average session duration 2:18

Articles per day 13

TEZOS

A DRAMATIC PLAY IN 3 ACTS

When Tezos entered the ICO stage everyone was waiting for a big show. True blockchain project with wonderful (and working) code, bright minds and charismatic leaders. It's turned to be the most successful ICO in all terms getting an enormous cap in just minutes. What happened next was a sort of Shakespeare's play. The Cointelegraph is here to review the dramatic events.

ACT I

In which Tezos makes its TOS perfectly legal

ACT II

In which Tezos launches the most successful ICO of all time

ACT III

In which enmity in the Tezos family puts the project in danger

All that glitters is not gold

William Shakespeare, The Merchant of Venice

ACT I

TOS ANALYSIS

When it comes to a matter of regulation, Switzerland-based Tezos is something of a stand-alone project. DLS Inc. is based in the USA, where the controls over blockchain programmes are far more stringent, and owns the rights to all of Tezos' intellectual property. As such, the companies' legal affairs are closely intertwined. Whereas DLS has no objectives in the crypto-sphere and is therefore exempt from the applicable legislation, Tezos is very much the opposite: a modern "sandbox for start- ups" that deals in the administration and verification of smart contract transactions.

The nature of the organisation's goals undeniably complicated and delayed its entrance onto the ICO stage but, in July 2017, weeks after initially planned, Tezos finally oversaw a successful ICO fundraiser. The ICO was executed in correspondence with the latest Swiss legislation and raised $232 million: the largest amount of money ever raised by ICO procedure as of July 2017.

THE WAY THINGS WERE	THE WAY THINGS ARE
There was no definition of what a "token" is. At best, there was simply a description of its functions.	There is strong emphasis on the fact that a token does not give any proprietary rights. An explanation of token functions is also extended. The probable purpose of this is to avoid ambiguity when it comes to the responsibility of the intermediary that handles actual property.
Shares were neither mentioned nor referenced.	It is reiterated that a token is not the equivalent of a share, and that it does not sanction the authority to take charge of a company. This is to enforce the rigorous regulation of companies and projects issuing shares.
The terms of use did not consist of of a description of the project, the platform or the function of the tokens.	The terms of use include a description of the project. This serves to further confirm the distinction between tokens and shares, and that a platform supports the trading of tokens and tokens alone.
There was no description of a contributor's role.	A donator is now defined as a person who spends money on projects or tokens. This clarification is required because the presence of investors can impose additional restrictions obligations upon an given blockchain project.
Third party liability was not mentioned.	The contributor is made aware that responsibility ultimately lies with him/her, and that the other participants in a project are not liable for the conduct of third parties. This seeks to protect the various participants involved in launching a project.
The only audits carried out were for marketing purposes.	Audits are conducted on the software, though it is stressed that an audit cannot guarantee anything to the contributor as the technology is new, experimental and still developing. The reason for this change is not clear. An audit is not considered a mandatory procedure by any of the revised state legislation. It could merely be a way of record-keeping, to be used as a reference point in case of a trial.
Only a superficial list of the risks involved in purchasing tokens was disclosed.	Risks are expounded in far more detail. Such a development would help draw the lines more distinctly in any potential dispute or court case.
The creator of a blockchain would dismiss taxes as unimportant and optional.	It is strongly asserted that the purchase of tokens is not a speculative investment. If tokens are sold at a higher price than initially bought, the contributor must pay taxes in accordance with those issued my his jurisdiction. New legislation has provoked this change, as blockchain regulation now seeks to levy taxes from the majority of incomes in the crypto-sphere.
There was no user discrimination	The service is available to adults only. This helps to fulfil the basic, ubiquitous precondition that only people of a sufficient age are legally allowed to work in the fintech industry.

ACT II

CRYPTO LEDGER TEZOS RAISED $160 MLN IN 32 HOURS

Self-amending cryptographic ledger - Tezos - has raised almost $200 mln in the first two days of its ICO.

The uncapped sale of its Tezzies (TEZ) tokens will continue through July 12. At press time Monday, contributions had reached 42,600 BTC ($104.3 mln) and 184,700 ETH ($51.2 mln) for a combined total of around $155.5 mln.

The lack of hard cap means Tezos could easily end up being the largest ICO ever once it closes in ten days' time.

The project had garnered tremendous interest from the cryptocurrency community and beyond, thanks in part to support and bullish sentiment from celebrated investor Tim Draper.

Draper has since been somewhat quiet about his relationship with Tezos, while another project he sponsored, Bancor, also became the biggest ICO in history after it raised $153 mln.

This total was eclipsed just a week afterward by Brock Pierce's Block.One ICO, however, which reeled in $185 mln.

The unlimited token issuance has meanwhile avoided the network clogging and mad rush which was ubiquitous with June's prominent Ethereum token sales.

Tezos has remained free of any major technical problems, while it remains to be seen if developers can rise to the occasion and put funds offered, which could easily top half a billion dollars, to adequate use to generate value for investors.

ACT III

EXCELLENT TERMS OF USE IS NOT ENOUGH FOR SUCCESS

Our London correspondent Nick Ayton, the Sage of Shoreditch, explores the infighting at Tezos that reveals the ICOs structural challenges.

Some suggest the SEC might demand Tezos' founders refund investors' money... all $232 mln of it.

Apparently there are some deep seated personal and structural issues with how the token sale was structured, marketed and executed that will be a lesson for us all.

Why are suspicions being raised that some investors were allowed to exit with profits? How was the $150m valuation arrived at? What was Tim Draper's role? Might investors have simply been misled and was there a role here for the hype and dumb people? And the big one, is the Tezos token really a security? And why was the token not registered with the SEC?

TEZOS, A KICK IN THE TEETH FOR INVESTORS

Tezos was intended to deliver a self-amending crypto ledger technology and improve on the Ethereum and Bitcoin networks, boosting security and trust. This is a bit rich given what appears to have been going on behind the scenes.

A quote from Tezos sale website will come as little comfort and a kick in the teeth for investors.

> ***"Tezos was built on the belief that a deep commitment to security, formal verification and governance that gives stakeholders the power to make protocol decisions is the formula for earning trust and generating widespread adoption on the blockchain"***

Earning trust, deep commitment, governance are very strong statements but clearly don't apply to how investors may have been treated or the behaviour of the founders and their VC partners.

RED FLAGS

Tezos is owned by DLS (Dynamic Ledger Solutions), which is in turn owned by husband and wife Arthur and Kathleen Breitman and venture capital partners.

It was later disclosed the VC was given a pre discount months before the ICO and then after the sale with 8.5% going the Mr and Mrs Breitman and billionaire Tim Draper.

The main sale happened in the summer of 2017 but pre deals were done as far back as September 2016 valuing the company at $6m without actually having an code ready to be released, barely in alpha.

And then as the ICO approached, Tezos was being valued at $150m - whereby Draper might have been exited his $6 mln investment in DLS and doubled his money.

WAS TIM DRAPER CHEATING?

Isn't it always the case that when a VC gets involved we should become suspicious as they are sure to tip the balance in their favour as the industry once again demonstrates that greed dictates their behaviours?

It is clear the strategy to use the Draper's name helped launch the ICO, but what retail investors didn't know was that he would not be investing for the long term and had a preferential deal.

Many questions remain unanswered and I am sure the SEC will be concerned primarily because investors may have thought they were investing alongside Mr Draper that will have influenced their decision to invest, when this was not the case...

BAD GOVERNANCE

Since the end of the ICO there has been a diversion of funds to various corporate structures and foundations. But the biggest issue is clearly the early profit taking for DLS and others ahead of retail investors, way before the venture has delivered anything substantial.

The most significant structural change is that Tezos' IP is transferring to a Foundation structure but the founders will hold 10% of all tokens generated at ICO, with no doubt the bulk being BTC that has enjoyed a huge capital gain and essentially doubled their money.

One has to ask where was the lock-in for the founders and the commitment to deliver what was promised in the White Paper to retail investors? Is this a clear warning for future ICO token buyers (of app tokens) and investors (securities tokens)?

> ***Why should Mr and Mrs Breitman and the VCs be rewarded before the Tezos proposition deliver on promises made - keeping in mind it has NO customers yet!***

It is also worth remembering that Tezos would need to become a multi billion dollar corporation to be able to return the $232 mln plus a decent premium to investors. And there is an expectation the founders should reveal their full business plans to show investors how they intend to build the business and secure its value.

A long shot when Tezos is competing for airtime and there are several others Blockchains emerging that claims to do what Tezos promises...

TEZOS TOKEN VALUE ENGINEERED FOR THE FOUNDERS?

As it turns out, Tezos tokens most likely will not deliver for investors not only because it allowed profit taking via a deep discount pre sale but worst of all, because the token sale was uncapped.

Of course the biggest problem with uncapped token sales is you immediately limit the after or secondary market and that can hurt liquidity. If the Tezos sale was capped at $100 mln then technically the investors that comprise the $130 mln that missed out would seek to buy the tokens in the market which would help the Tezos tokens market value and therefore reward early retail investors.

It is also clear the tokenomics were designed to deliver for early investors and the founders but not for the crowd of investors that placed faith in the management team to build out a new technology and lock in the value

NOT INVESTORS, BUT PEOPLE WITH MONEY TO SPARE

There was a vesting period for the husband and wife team but not as part of any formal Employment Contract, where there are expectations for delivery. Instead, the vesting period is merely programmed into a smart contract that releases 1/48th of their holding monthly over four years without regard for how well they do their job. Please keep in mind they still have no customers or working production systems!

The Brietmans clearly think very little of their investors. Should any refund include the full repayment of ETH plus any capital gains made from the recent rise in BTC and ETH? As it was clear investors handed over their BTC and ETH in good faith (thinking Tim Draper was alongside them) and they missed out on the recent rise in cryptocurrency values

HINT OF PONZ

The Brietmans have made their money so why would they stick around to make good on the White Paper?

Now we find income from the ICO is being diverted into projects that are intended to prop up the original investment and generate returns for investors (and it seems more for the founders) - making it look like Tezos is also active and attractive.

Is it Ponzi Scheme or not? You decide..

Kathleen Brietman is also a former member of Bridgewater Associates, the world's largest hedge fund and she is involved in the mechanics of DLS. And yet despite the funds raised there is little to show how the Tezos team have scaled their operations or the development efforts to get the tech to market to be used by real customers.

BOOK OF ICO REVELATIONS, CHAPTER 2

As an advocate of ICOs and Libertarian, I find the Tezos position very disappointing. We are all reminded that the greed of the few could ruin it for everyone. Even worse, VCs were involved, and they should know the rules and know better! In the case of Tezos, once again greed seems to have gotten the better of everyone, and retail investors were hung out to dry.

It is worth reminding everyone there are some founders who engineer an ICO to make money for themselves and not for investors, as the Tezos situation indicates.

What is surprising is that with lawyers, VC's, hedge funds and a board of advisors in tow, the Tezos founders were nonetheless allowed to create a money making structure that would bleed retail investors, allowing early investors the opportunity to 'flip' and get out, taking profits from retail ICO money.

> ***With several ICO projects raising $100 mln, $200 mln and more questions will be asked.***

With so much money at stake, the warning signs for future investors are there. In short, beware chasing quick returns, trying to buy into the next big technology thing on the Blockchain.

STRUCTURAL CHANGES NEEDED

The problems with Tezos highlights the need for structural changes to the ICO process, beyond merely declaring the token a security and making sure the jurisdictional laws are applied and existing banking and payment laws are not breached.

For many ICOs the single biggest problem is governance, or a lack of it, closely followed by clarity of how the founders' feet will be held to the fire to ensure they deliver what was promised for investors.

There should be control of funds, and then we have the vesting period, both for founders and investors. When are they allowed to get out, and should all terms be 'pari passu' where all investors are treated the same?

Then there are the pre sales, pre ICO discounts that many now see as either a Ponzi structure that works against retail investors, creating an uneven playing field that will suit the bigger and institutional investors.

Now look, offering discounts, founders taking tokens and institutional investors getting involved or the odd big name is all fine, provided everything is disclosed upfront and the necessary controls and checks are put in place to protect retail investors and the value of the token.

Don't make the same mistakes.

Achain

TONY CUI

EXCLUSIVE INTERVIEW FOR BLOCKSHOW ASIA

ASIA IS CONSIDERED ONE OF THE WORLD'S MAIN CENTRES FOR BLOCKCHAIN ADOPTION AND DEVELOPMENT; PLEASE SHARE YOUR THOUGHTS ON WHETHER THE RECENT CHINESE REGULATIONS (I.E. "ICO BAN") WILL AFFECT THIS TREND AND HOW DRAMATIC THIS IMPACT IS GOING TO BE?

First of all, blockchain technology is no doubt making a dramatic impact on the world. Many experts consider blockchain to be, without exaggeration, the fifth technological revolution. It constructs a distributed Internet for the next generation. The advancement of blockchain protocols fundamentally changes how society functions, building a future that highly values pooling and trustworthiness.

Secondly, despite China's ban on ICO, blockchain is still setting the future trends of technology development in Asia and the rest of the world. Our industry and research in the country did not stop with the ban and is not even slightly slowing down. On the contrary, it is getting into better shape with the role of government leadership recently increased.

Actually before the ban, our previously unregulated market too often permitted the coexistence of both good and bad cryptocurrencies: too often were practitioners and investors attracted to the face values of those cryptocurrencies without digging into their applications or commodity values. That was certainly detrimental to development of blockchain.

Hence, I believe that the ban is inherently an opportunity for what might resemble an internal reform in the domestic market, which is preparing us and the blockchain industry for a better, long term future.

PLEASE OUTLINE SOME OF THE MAIN WAYS IN WHICH BLOCKCHAIN TECHNOLOGY DISRUPTS AND IMPROVES THE SITUATION IN ASIAN COUNTRIES (E.G. ECONOMY, LEGAL FIELD, ETC.)? IS ACHAIN SOMEHOW INVOLVED IN ANY OF THESE?

When we think of blockchain technology, too often do we limit ourselves only to buying tokens and investing on ICOs. As of today, the technology has already been applied to all the various industries that we can think of:

Financing. Blockchain's technological characteristics especially suit services based on credit. ICO is a revolutionary innovation in this respect. China witnessed the rise of many other blockchain based financial applications. For instance, an insurance company in 2016 incorporated blockchain into its air-travel accident insurance policy, which allows a transparent tracing of its entire circulation network. In addition, research has been devoted to credit scoring, ABS, audition, and many other areas.

Supply chain management and IOT (Internet of Things). This involves applying the blockchain platform to supply chain management, ensuring the supply chain arrangement for meat, milk, and other food products.

Medication. A blockchain-based system holds electronic medical records and reports, effectively reducing the complications involved in medical disputes.

Anti-counterfeiting in the art, luxury, and antique industries.

Copyright protection, especially applied to the music, photography, and publication industries.

Decentralized cloud storage. Ashare, a project utilizing the Achain platform, is a good model serving this purpose.

Other areas, such as stock exchange, decentralized domain servers, identity verification, digital asset management, etc.

As for Achain, the basic platform for the aforementioned blockchain applications, we give support in the areas of issuing tokens, smart contracts, protocols, and blockchain systems. Many applications within the Achain ecosystem are also highly valued by society. Ashare, for example, significantly utilizes leisure storage spaces. LinkEye, too, accelerates the process of building a more trustworthy social credit network. I am confident that more life-changing products and services will be produced by the Achain platform.

SOME EXPERTS STATE THAT THE CHINA'S ICO BAN IS TEMPORARY. WHAT'S YOUR PERSONAL OPINION ON THIS?

Like I discussed at the beginning, blockchain is the world's future direction, and China plays a decisive role in it.

AS ONE OF THE CUTTING-EDGE COMPANIES ON THE ASIAN BLOCKCHAIN SCENE, DO YOU SEE THE IMPORTANCE OF ESTABLISHING A FULL-SCALE DIALOGUE BETWEEN THE ASIAN AND GLOBAL BLOCKCHAIN ECOSYSTEMS? WHAT ACTIONS AND ACTIVITIES, IN YOUR OPINION, SHOULD HELP TO ACHIEVE THIS?

Yes, I believe that in the world of blockchain, everything is borderless. My team and I in Asia are currently working on maintaining a healthy dialogue with some of the top-rated blockchain developing teams in the rest of the world, and we recognize such effort as a must for the survival of our brands.

IN ADDITION TO THE PREVIOUS QUESTION: WHAT ARE YOUR OWN PLANS FOR GOING TO THE INTERNATIONAL MARKET?

Achain is actively expanding its overseas markets. This itself is a systematic project:

First, we have to ensure our technological advancement to compete in the global market. Achain already incorporated a modular design and innovation sandbox technology at the early stage of its development. Looking ahead, we are planning for a three-phase roadmap, starting from "Smart Contract Network" and transitioning into a "Fork Network" and an "Interconnected Network". We expect to lead the in-depth research and development of Sub-chain, BaaS, Event-Driven mechanism, and high isolation levels for enhanced security.

Secondly, we are seeking to collaborate with international institutions, as well as groups and individuals, to strengthen our global branding and influence.

Thirdly, we are shifting our focus to a diverse variety of communities and working with corresponding experts from those local markets.

WHAT EXPECTATIONS DO YOU HAVE FOR BLOCKSHOW ASIA 2017? WHAT IS ACHAIN'S MAIN GOAL FOR SUPPORTING AND PARTICIPATING IN THIS EVENT?

Globalization is one of our major goals in 2017; and we have expanded our operation to North America, Switzerland, Mexico, Singapore and other regions and countries. BlockShow is one of the most influential summits that connects all the leaders and community members in the blockchain industry, and it is the very first time that Achain will deliver its global presentation. By attending BlockShow Asia, I expect to meet with more global partners and enthusiasts and present our dream to build a "boundless blockchain reality". Our attendance at BlockShow Asia is a very important milestone in the history of Achain's development.

In my opinion, although the development of the blockchain industry in Asia started later than it did in western countries, there is a geometric increase in the number of participants from Asian countries in recent years, which leads to the rise of outstanding startups and entrepreneurs. I hope that by supporting BlockShow 2017 in Asia, we can further promote and contribute to the development of the blockchain industry in Asia.

WHAT PLANS DOES ACHAIN HAVE FOR AFTER BLOCKSHOW ASIA UNTIL THE BEGINNING OF 2018? PLEASE SHARE WITH US.

Achain has always regarded technological development as being of the utmost importance. We will keep on focusing on technological innovation to achieve the goal of building a boundless blockchain reality. Meanwhile, we would like to actively communicate with our international community via our forum, Github and Twitter etc. to hear from more advisors who can help us accelerate our development. Achain will be the most influential blockchain community. We will release Achain's new strategy in early 2018, please stay tuned.

LEGAL

THE BRIEF HISTORY OF REGULATIONS

Ask anyone in the cryptosphere, and they'll tell you the hot topic these days is regulation. After a couple of years of 'wild west' ICO and cryptocurrency explosion, governments have begun to crack down.

Yet, some companies are taking the necessary steps to comply with the SEC regulations, thereby assuring their investors that they are a safe company to support. While this requires more time and far more effort, companies are seeking to protect their contributors and themselves as well.

SINGAPORE

As evidenced in this document, a good deal of ICO fraud was committed in Singapore in 2016. With the goal of keeping investors safe from scam projects, the MAS will regulate some of the blockchain startups that are crowdfunded through ICO. According to SFA (Securities and Futures Act) cap 289, issued tokens will operate like bonds and will be monitored by the MAS. This is a critical development because, in 2016, there was simply no governance of crypto-currencies or digital tokens, and the MAS considers the former to be a hyponym of the latter. In addition, the MAS is beginning to impose controls of intermediaries who offer users the opportunity to trade in tokens. These new regulations in Singapore very much represent an extension of the KYC system, which is required for most crypto- projects in the USA and beyond.

In October during an interview with Bloomberg, an official of Monetary Authority of Singapore (MAS), which serves as the central bank and financial regulator of Singapore, said that MAS has no plans of regulating cryptocurrencies.

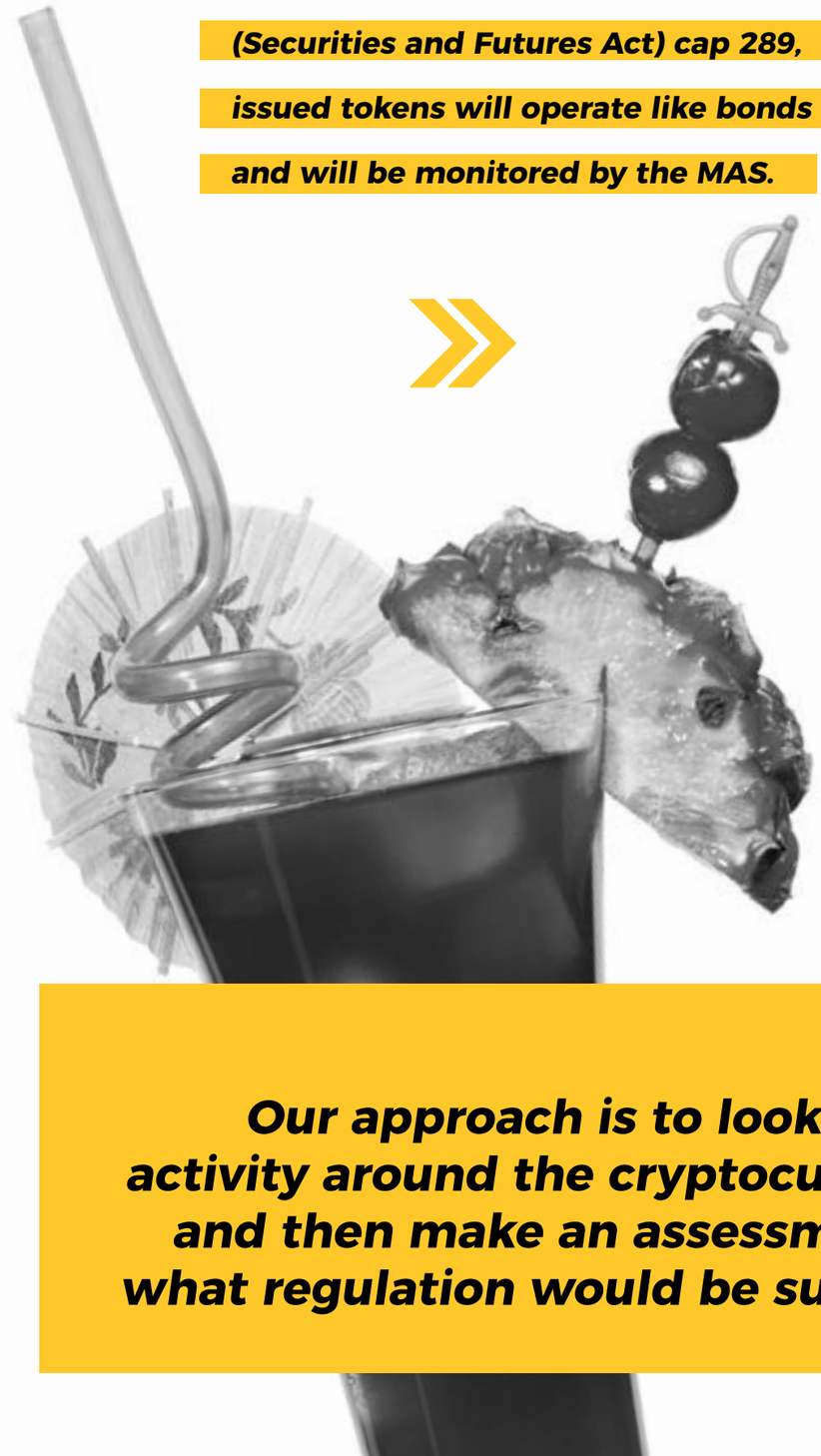
During the interview, MAS Managing Director, Ravi Menon said that:

> ***"We've taken the approach that the currency itself does not pose the risk that warrants regulation. Our approach is to look at the activity around the cryptocurrency and then make an assessment of what regulation would be suitable."***

> ***"It is a known fact that cryptocurrencies are quite often abused for illicit financing purposes, so we do want to have AML/CFT controls in place. So those requirements apply to the activity around cryptocurrency, rather than the cryptocurrency itself."***

The central bank will keep "an open mind," though the official also stated the necessity of establishing anti-money laundering control in the future.

According to SFA (Securities and Futures Act) cap 289, issued tokens will operate like bonds and will be monitored by the MAS.



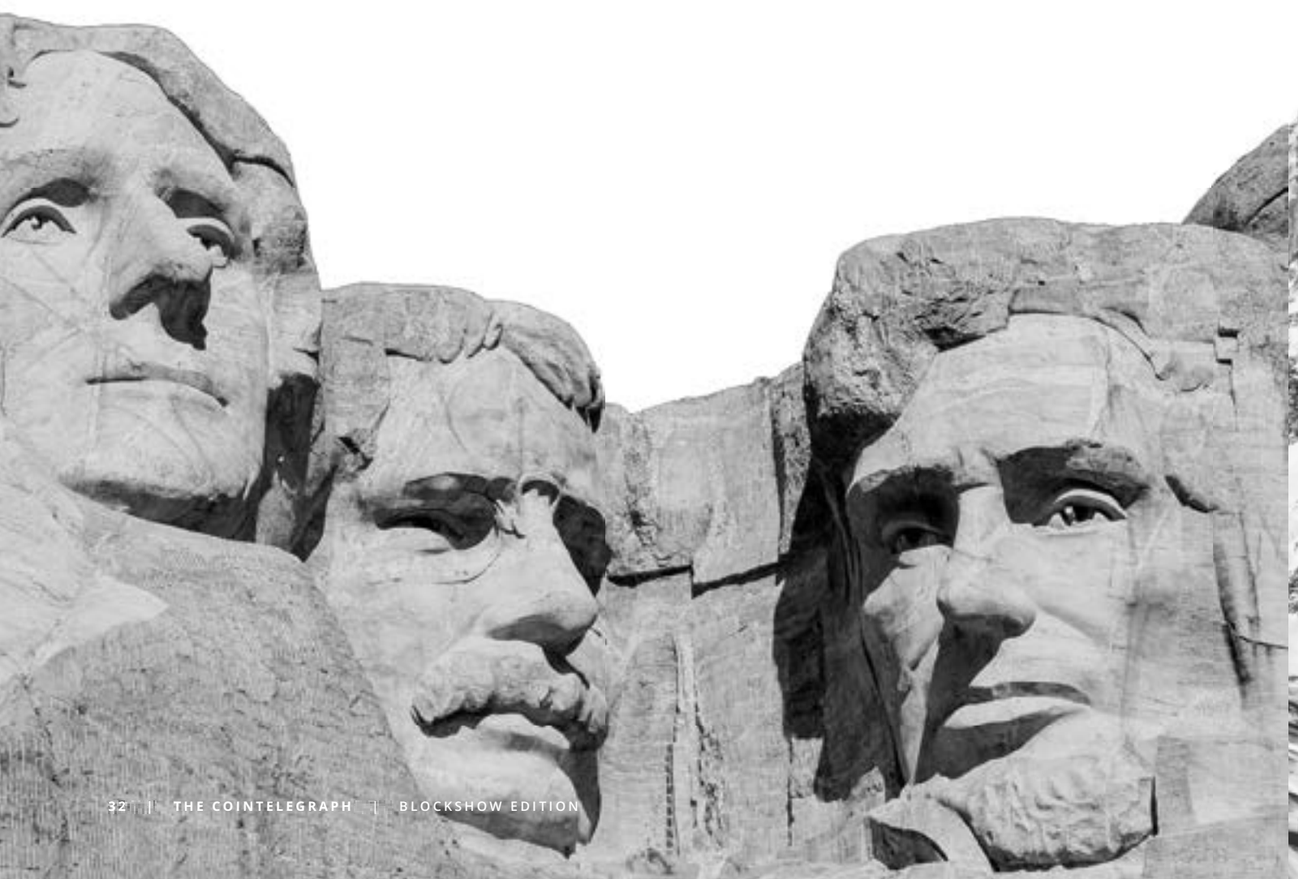
Our approach is to look at the activity around the cryptocurrency and then make an assessment of what regulation would be suitable.

USA

In the USA, the SEC is taking a slightly different approach in its attempt to manage the lack of sufficient regulation for blockchain initiatives and assets: through legislation that is already in practice. Enclosed in the linked document is the SEC's definition of "security", and the assertion that businesses will have to register as an exchange, as an ATS1 or as a broker in accordance with the law.

"Even the most legitimate and fiscally sound ICOs pose a potential threat for their issuers. "Coins" or tokens can look a lot like traditional securities, because they enable companies to take investors' cash while holding out the potential for profit. And selling securities without SEC approval violates federal law".

FileCoin, which raised $250 million by ICO means - the largest sum of money ever raised by this method - was regulated in line with the latest SEC rules.



SWITZERLAND

The Swiss Federal Council has declared its ambition to cultivate an ecosystem for new fintech start- ups. This motion, which is considered long overdue, will free projects that have generated fewer than CHF 1 million (approximately $1 million) from authorisation. The idea is that this will allow organisations to experiment with their business models, giving them the freedom to grow before they require further financial injection. Far from being their first attempt to develop a fintech ecosphere, the Federal Council were clamouring for the easing of administrative frameworks for up-and-coming fintech companies in November 2016.

Switzerland's Crypto Valley Association continues its legal advocacy with the launch of a legal framework for tokenized assets.

In a press release issued Tuesday, the CVA, which consists of a number of Bitcoin and Blockchain's best-known companies, said it was distributing the paper on behalf of Blockchain legal firm MME and "tokenized ecosystem" provider Blockhaus.

In October 2017 Payment gateway Payment21's owner has become the first Bitcoin company to gain full regulatory compliance from Switzerland's financial regulator.

China

According to the Chinese government, fundraising is unlawful when it is “a fundraising which is not agreed with state administration or higher than allowable amount”. Those who are complicit in illegal fundraising may be fined between ¥200,000 - ¥2 million. Furthermore, projects that disregard administrative instructions and engage in financial terrorism (such as money-laundering or raising funds for criminal activity) are punishable by the heaviest hand of the law: “illegal fundraising may face the death penalty in China”. N.B. BTC is already regulated but only available to individuals.

Those who are complicit in illegal fundraising may be fined between ¥200,000 - ¥2 million.

In early September, China banned initial coin offerings (ICOs) and a week later Chinese authorities shut down major cryptocurrency exchanges in the country.

On Oct. 23, BTCChina, the largest Bitcoin trading platform in China, announced that it will shut down the exchange business and stop providing withdrawal services on Oct. 30.

The job of checking on and returning funds is the last step of BTCChina’s shut down. On Sep. 27, the platform stopped accepting CNY and Digital Asset deposits. On Sep. 30, it stopped accepting fiat and crypto currencies and shut down all trading functionality on BTCChina Exchange.

Besides BTCChina, other Chinese Bitcoin trading platforms like OKCoin and Huobi have also announced that they will close CNY trading market based on the “Seven Regulatory Bodies” Announcement issued before by the regulators.

The Chinese government currently bans Bitcoin trading, although it does not consider it absolutely illegal. Some scholars believe that this means that the Chinese government might free Bitcoin trading under certain circumstances in the future.

When the regulation system is complete, the Chinese government might reopen the gate for Bitcoin.

Additionally, both Huobi and OKCoin stated that they would keep communicating with regulators and try to recover CNY trading market in the future.

> ***Illegal fundraising may face the death penalty in China***

WHAT INDUSTRIES DO YOU THINK ARE THE MOST ADVANTAGEOUS IN TERMS OF BLOCKCHAIN EMPOWERMENT, AND WHY?

Generally speaking, revolutionary technology like blockchain is applicable to all industries, just as the Internet has been over the past 30 years. As long as the collaborations require trust, blockchain technology can be applied to either reduce cost or improve efficiency, or even both in many industries. However, changes have never been easy. There are different levels of challenges in different industries adopting blockchain technology.

Since 2015, VeChain has been committed to building a trust-free and distributed business ecosystem in which it is possible to apply blockchain in various industries. As the first step, we have made breakthroughs in luxury retailing, wine & spirits, and the automobile industry. We believe blockchain can make exciting evolutions in two years. The enterprises that are willing to explore applications of blockchain have appreciated a lot the features of blockchain technology and the various values brought to their own business, including the most important one: to be a pioneer in their own industry and potential leaders in the future.

WITH THE NODES IN 5 COUNTRIES ACROSS THE GLOBE, VECHAIN CAN BE CALLED AN INTERNATIONALLY OPERATING COMPANY. IN YOUR VISION, IS THERE ANY DIFFERENCE IN APPROACH TO RUNNING BLOCKCHAIN-POWERED BUSINESSES IN THE WESTERN AND THE EASTERN PARTS OF THE WORLD?

Firstly, I have to say that blockchain itself was born without borders. We are quite international not only in terms of node distribution, but also talent in our global offices around Paris, Singapore and Shanghai, the HQ. From my observations, the perception that blockchain is going to change the world is quite consistent in the western and eastern world. For sure, there is variation in terms how to get there due to the culture difference, the maturity if the industry, globalization, and usual practices. For example, enterprises in western countries would have quite a systematic approach to exploring blockchain application with three steps: 1. Knowledge acquisition and analysis; 2. POC(Proof Of Concept) stage to test; 3. Plan and go for production. The ones in eastern countries may act more quickly but reiterate the need for continuous future improvement. Nevertheless, the whole world is fascinated by this cutting-edge technology which is predicted to change the world as the Internet did. People become more and more curious and excited about this new technology and, as we observed, are increasingly willing to join this party in both western and eastern markets.

AFTER THE RECENT DRAMATIC CHANGES IN CHINESE REGULATION, MANY COMPANIES HAVE STARTED GOING GLOBAL WITH THEIR PRODUCTS AND SERVICES. HAS THE ICO BAN AFFECTED VECHAIN OPERATIONS IN ANY WAY? PLEASE SHARE YOUR PLANS FOR THE NEAR FUTURE.

Firstly, I believe it's a right thing to ban ICO considering the previous "hyper fever" of ICO in China, which would have harmed blockchain development and exploration. As said by the government, 90% of the current ICO projects may not be real blockchain projects. As a blockchain-leading player in non-financial industries, VeChain has been making great efforts since 2015 in the realms of technology, talent, market education and team development. It's good for authorities to suspend it and assess future directions at this particular moment. However, we can still see the openness and strong support from the Chinese authorities for new technologies including blockchain. VeChain will continue to focus on business applications and blockchain R&D. At the same time, we are working with a well-known third party audit firm and a law firm to run a comprehensive finance and legal audit to contribute to blockchain technology development and application. We are highly confident that VeChain will be one of the 10% of good blockchain projects with solid technology and many potential applications which add value to our clients in related industries.

Our plan for the near future would be:

- *Governance and economic design for the VeChain ecosystem wit h multiple universities across the world. We believe a proper governance and economic management can really bring freshness to today's blockchain, which could really attract enterprises .*
- *Main Net upgrades development and Go for open-source. The VeChain blockchain network has been running for more than two years, starting as a blockchain consortium. The next upgrade milestone is to make it a public blockchain with proper governance and security to expand the community and participation.*
- *Continue to roll out business applications on VeChain. More applications uncover further exploration and more participants, which will really accelerate the development of blockchain technology.*

WHAT DO YOU THINK ARE THE MAIN DRIVERS AND COMPONENTS OF MASS BLOCKCHAIN ADOPTION?

There are many factors that may potentially influence blockchain adoption, such as a better public understanding of blockchain, like what blockchain is, why it is so important, and what potential value it may add to business and society. Government policy and regulation and a growing media drive to educate the general public are also very important. Meanwhile, appropriate governance can promote technology development in the community, economic motivation can encourage increased participation, starting with the exploration of applications. Besides, VeChain, as one of the industry leaders, will continue sharing more knowledge worldwide to drive awareness and a better understanding of this new technology together with our peer companies.

PLEASE TELL US MORE ABOUT THE RECENT "VECHAIN CUP" NATIONAL SAILING COMPETITION. WHAT IS THE MAIN PURPOSE OF THIS EVENT AND HOW DOES THIS EXPERIENCE HELP TO BRING TOGETHER AND SUPPORT THE LOCAL BLOCKCHAIN-ORIENTED COMMUNITY?

The "VeChan Cup" National Sailing Competition is the 6th National Business School Sailing Competition in China, which is top business schools have taken turns to organize annually since 2012, aiming to boost the popularity of sailing in China.

It was organized by Qingdao Alumni of School of Management Fudan University this year, with over 200 attendees and contestants who represent Chinese entrepreneurs, corporate senior managers and social elites across multiple industries.

As a title sponsor, VeChain organized a blockshow panel together with alumni of Fudan University to raise the awareness of blockchain technology and applications. Dr. Jie Liu, a well-known professor from Fudan university gave an inspiring speech on blockchain. I spoke on how blockchain is revolutionizing the business world, and show how VeChain blockchain can be applied in various industries. Two presentations were very interesting, combining academic opinion with application practices, which created lots of buzz among local media and the attendees, many of whom showed interest in the potential uses after gaining a clear understanding of blockchain and seeing corporate use cases from the panel. We believe there are going to be more and more opportunities for application in those enterprises and communities.

WHAT IS THE GREATEST AND MOST ENJOYABLE APPLICATION CASE THAT VECHAIN HAS EVER WORKED ON?

Actually, we have enjoyed cooperating with our clients on lots of great use cases in the past two years. If I had to pick just one, I would choose the one we did with Renault in Paris, even though it's just a POC (proof of concept). We helped them build a new data service platform on smart contracts and blockchain to manage consumer data profiles. The data is collected from different parties and data ownership is attributed to owners of the cars. When the fragmented data is assembled from different parties, it shows much greater value! This value can be distributed appropriately by smart contracts to the right contributor. In this way, it echoes the Latin phrase "One for all, all for one", and only trust in the data and operations (by smart contracts) provided by blockchain can make it work! This case shows one of the promising ways in which the world could be totally different with a trusted network built on blockchain. This revolutionary blockchain case not only creates extra value for consumer loyalty with new data services, but also helps the enterprise keep its position as a market leader with strategic innovations in the automobile industry.

TECHNOLOGY

READ ME

ESSENTIAL KNOWLEDGE ABOUT SMART CONTRACTS

SMART-CONTRACTS: WHAT ARE THEY AND WHY SHOULD WE CARE?

Nobody likes a middleman. They take our time and our money to do things that we could probably do ourselves, and we never know if they really have our best interests at heart. In the 21st century, the age of technological enlightenment, do we really even need them anymore? Smart-contracts not only remove the cost and conflict of interests of an intermediary, but ensure that the transaction of our assets over the blockchain is secure and transparent by defining and automatically enforcing the terms of a deal. The agreements are converted into code and, just like any other decentralized system, they are monitored by the network of computers that operate the blockchain. It is a dependable system but, as with most things, real trust comes from a place of understanding. Here, we will help you to understand the code behind smart-contracts.

Let us analyze the example of Zero Ex to better understand the essence of smart-contracts .

Zero Ex Intl provides a platform for the decentralized exchange of ERC20 tokens. It is worth noting that most crypto-asset exchange platforms are still centralized. Zero Ex protocol allows participants to transfer ERC20 tokens between themselves in a secure and transparent way through an Ethereum smart-contract. The project has already raised $24 million through ICOs.

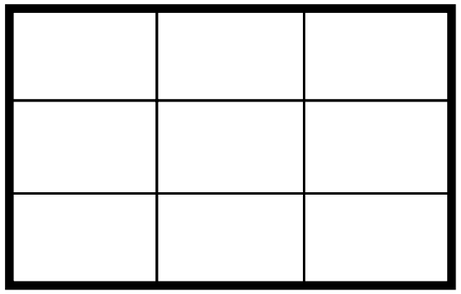
There are some symbols, the meaning of which you need to know. “///” at the beginning of a line signifies a developer’s comment, which ends at the end of the line. All smart-contracts consist of special functions. A smart-contract begins with a brief function description, and said functions are usually explained by the smart-contract writer. He or she can outline a function’s parameters and detail its elements; “@” precedes the name of an element. E.g. “@flowers - the number of flowers that could be used”. The “@” symbol also signifies a developer’s comment. There are further examples below.

THE STRUCTURE OF GENERAL TOKEN SMART-CONTRACTS

A simple smart-contract is usually comprised of several contracts arranged in a hierarchy. At the top of this pyramid is the contract token, in which all of the smart-contract's functions are detailed . Every subordinate smart-contract provides more information about the functions, and can even introduce new functions too. All functions should be covered in the smaller contracts.

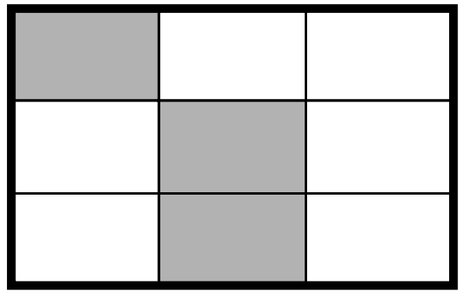
The structure of an ordinary smart-contract could be represented as a table. The whole table would be a contract token, table cells are functions. Subsequent contracts would be filling cells.

1



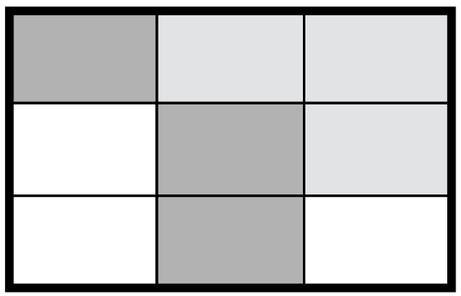
CONTRACT TOKEN (EVERY CELL IS A FUNCTION)

2



CONTRACT STANDARD TOKEN BUILT ON A CONTRACT TOKEN COVERS A FEW FUNCTIONS AS YOU CAN SEE ON THE TABLE BELOW

3



SMALLER CONTRACTS BUILT ON A CONTRACT STANDARD TOKEN COVER ADDITIONAL FUNCTIONS AS YOU CAN SEE ON A TABLE BELOW

4

THE LAST CONTRACT IN THE HIERARCHY COVERS LAST UNCOVERED FUNCTIONS.

Most token smart-contracts are built the same way. As you can see above, the ordinary contract token alone is not a real working program, it does not work without smaller contracts built on it. In addition, smaller smart-contracts could not exist without the contract token.

If any function is not represented in one of the contracts, the whole smart-contract would not work. So, it is very important that every function mentioned in the contract token is covered in a few smaller contracts .

By reading the first part of any smart-contract, you gain a general understanding of the smart-contract in its entirety.

ADDITIONAL COMMENT	SMART CONTRACT	EXPLANATION
contract token is a "table" as mentioned below	contract Token {	
N.B. "param" means indication of some parameter. @param_fl could be	// @return total amount of tokens	
First cell	function totalSupply() constant returns (uint supply) {}	General function of supplying tokens. It is quite widespread.
N.B. "param" indicates a parameter, some number which would be indicated in real case. Every "param_" has the same meaning below.	/// @param _owner The address from which the balance will be retrieved	Explanation of term which could be used in more detailed and technical description of function.
Second cell	/// @return The balance	Explanation of what the word "return" refers to.
	function balanceOf(address _owner) constant returns (uint balance) {}	This phrase should be understood like so: we specify an "address_owner" and the function outputs the "unit balance"
	/// @notice send `_value` token to `_to` from `msg.sender`	Explanation of the relationships between "_value", "_to" and "msg. sender"
	/// @param _to The address of the recipient	Explanation of "param _to"
	/// @param _value The amount of token to be transferred	Explanation of "param _value

	/// @return Whether the transfer was successful or not	What will be returned to the participant after doing the function
Third cell. Bool success is a logical function which has two possible outputs: “true” or “false”, here and below.	function transfer(address _to, uint _value) returns (bool success) {}	The function sends some units and informs us whether it is successful or not
	/// @notice send `_value` token to `_to` from `_from` on the condition it is approved by `_from`	We can see that the comment is very similar to the first comment of function transfer. The difference is a new condition “approved by sth”. Functions "transfer" and "transfer from" look very similar. However we can see the difference in new detail "approved by '_from' "
	/// @param _from The address of the sender	Explanation of “param _from”
	/// @param _to The address of the recipient	Explanation of “param _to”
	/// @param _value The amount of token to be transferred	Explanation of “param _value”
	/// @return Whether the transfer was successful or not	What will be returned to the participant after performing the function
Fourth cell	function transferFrom(address _from, address _to, uint _value) returns (bool success) {}	As mentioned below, the function “transfer from” is very similar to the function “transfer”.
	/// @notice `msg.sender` approves `_addr` to spend `_value` tokens	Passing of the right of transfer from one participant to another
	/// @param _spender The address of the account able to transfer the tokens	Requirement for being “param _sender”

	/// @param _value The amount of wei to be approved for transfer	It is quite obvious: how many tokens could be transferred
	/// @return Whether the approval was successful or not	What will be returned to the participant after performing the function
Fourth cell	function approve(address _spender, uint _value) returns (bool success) {}	Function “approve” makes a participant able to transfer tokens (unit value) from another participant’s count
	/// @param _owner The address of the account owning tokens	Explanation of “param_owner”
	/// @param _spender The address of the account able to transfer the tokens	Explanation of “param_spender”
	/// @return Amount of remaining tokens allowed to spent	How many tokens the spender allows to transfer from their account.
Sixth cell. We will check that all functions have been implemented	function allowance(address _owner, address _spender) constant returns (uint remaining) {}	There is slight difference between “function allowance” and “function approve”. “Function approve” implies that the active participant is someone who consents to the transfer of their tokens. “Function allowance” implies that the active participant is someone who receives the permission. Actually, the function is an opportunity to find out how many tokens are approved for the asking participant.
We should see the event like a part of an observable pattern. A smart-contract can show an "event". All those who follow the update of the smart-contract’s general blockchain will see this event.	event Transfer(address indexed _from, address indexed _to, uint _value);	There are no comments for the event “Transfer” from the SmartContract author. So we need to guess what does the event does. The event is based on “address indexed_from” “address indexed_to”, uint_value. Obviously, the event will inform how many tokens were transferred from “address indexed_from” to “address indexed_to”

```
event Approval(address indexed _owner, address indexed _spender, uint _value);
```

There are no comments for the event “Approval” from the SmartContract author either.

```
}
```

```
contract StandardToken is Token {
```

A beginning of detailed procedure description

Presented third “cell”. There are 1st, 2nd, 4th, 5th, 6th cells which should be represented.

```
function transfer(address _to, uint _value) returns (bool) {
//Default assumes totalSupply can't be over max (2^256 - 1)
if (balances[msg.sender] >= _value && balances[_to] + _value >= balances[_to]) {
balances[msg.sender] -= _value;
balances[_to] += _value;
Transfer(msg.sender, _to, _value);
return true;
} else { return false; }
}
```

The essence of the function Transfer is revealed. Firstly, the author mentions the maximum total supply. The function is a simple conditional statement. If all conditions (balance of message sender is high enough for spending, the value is not negative) are met, the function will give the output “true”. If they are not met, function will give the output “false”.

```
/* A contract attempts to get the coins */
function transferFrom(address _from, address _to, uint256 _value) returns (bool success) {
    if (balanceOf[_from] < _value) throw;                 // Check if the sender has enough
    if (balanceOf[_to] + _value < balanceOf[_to]) throw;  // Check for overflows
    if (_value > allowance[_from][msg.sender]) throw;   // Check allowance
    balanceOf[_from] -= _value;                           // Subtract from the sender
    balanceOf[_to] += _value;                             // Add the same to the recipient
    allowance[_from][msg.sender] -= _value;
    Transfer(_from, _to, _value);
```

Presented fourth “cell”. There are 1st, 2nd, 5th, 6th cells which should be represented.

```
function transferFrom(address _from, address _to, uint _value) returns (bool) {
if (balances[_from] >= _value && allowed[_from][msg.sender] >= _value && balances[_to] + _value >= balances[_to]) {
balances[_to] += _value;
balances[_from] -= _value;
allowed[_from][msg.sender] -= _value;
Transfer(_from, _to, _value);
return true;
} else { return false; }
}
```

The function “transferFrom” is a simple conditional statement too. The content of the function is similar to the function “transfer” as we have already noted above. The function “transferFrom“ compares the transferred value with the allowed value.

Presented sixth “cell”. There is 1nd cell, which should be represented.

```
function allowance(address _owner, address _spender) constant returns (uint) {
return allowed[_owner][_spender];
}
```

the opportunity for “address _spender” to find out how many tokens are approved for him

```
mapping (address => uint) balances;
mapping (address => mapping (address => uint)) allowed;
uint public totalSupply;
}
```

linking two data sets: addresses and amounts of tokens

```
contract UnlimitedAllowanceToken is StandardToken {

uint constant MAX_UINT = 2**256 - 1;

/// @dev ERC20 transferFrom, modified such that an allowance of MAX_UINT represents an unlimited allowance.

/// @param _from Address to transfer from.

/// @param _to Address to transfer to.

/// @param _value Amount to transfer.

/// @return Success of transfer.
```

Comments to the "param_s" are already mentioned above. The function "transferFrom" is a conditional statement with several initial data, like "unit_allowance", "value" and "balance_to". It is completed if the "Balance from" value is not negative.
This function considers allowing the transfer of more tokens than were initially issued. It looks strange, but the developer does it to give you the opportunity to share your account forever. If you allow the transfer of a larger sum of tokens than was issued to participant 1, the amount of tokens permitted for participant 1 will never decrease.

N.B. "cell" 4 occurs for a second time. It means that the function "transferFrom" operates under the new rules from now.

```
function transferFrom(address _from, address _to, uint _value)

public

returns (bool)

{

uint allowance = allowed[_from][msg.sender];

if (balances[_from] >= _value

&& allowance >= _value

&& balances[_to] + _value >= balances[_to]
```

N.B. "cell" 4 occurs for a second time. It means that the function "transferFrom" operates under the new rules from now.

```
) {

balances[_from] -= _value;

if (allowance < MAX_UINT) {

allowed[_from][msg.sender] -= _value;

}

Transfer(_from, _to, _value);

return true;

} else {

return false;

}}}
```

It easy to confuse "function transfer" with "Transfer". "Function transfer" is a "cell", "Transfer" is an event, the type of code part is mentioned in the first part of the smart-contract

The last contract in the hierarchy. It is very important to read it scrupulously. It should not consist of fraudulent function changes, like changing the function body to transfer all tokens to a third-party address.

```
contract ZRXToken is UnlimitedAllowanceToken {

uint8 constant public decimals = 18;

uint public totalSupply = 10**27; // 1 billion tokens, 18 decimal places

string constant public name = "0x Protocol Token";

string constant public symbol = "ZRX";

}}}
```

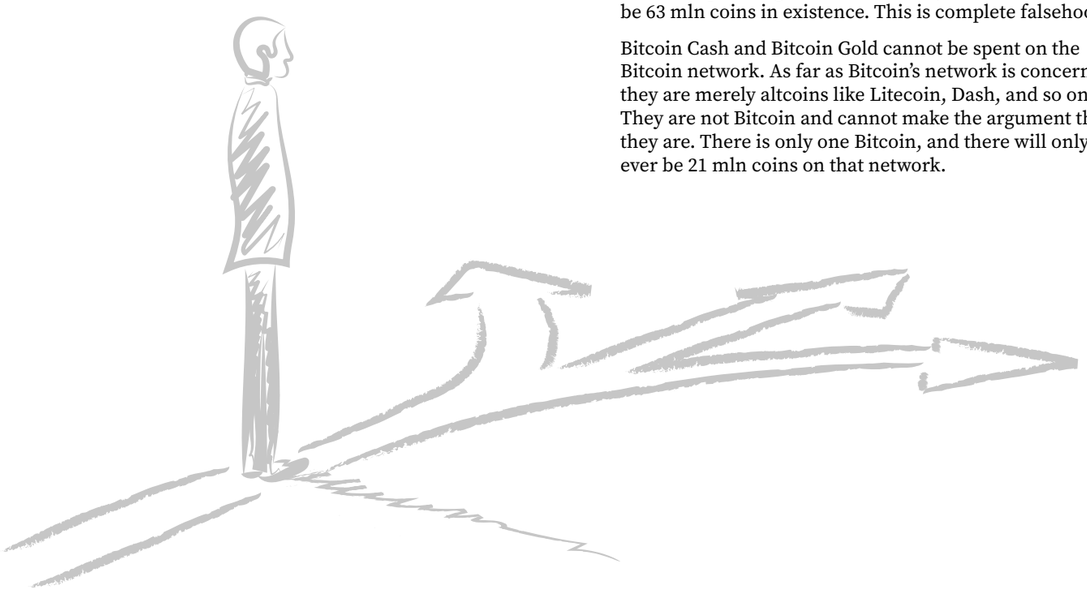
The last contract tells you how many symbols are available. It generally includes the token name and an indication of the total token amount.

Any questions that arise while reading through the details should be put to a smart-contract writer through any direct channel, e.g. on BitCoinTalk. If the author ignores the question or provides a vague, general answer, this should be a red flag to the prospective investor.

DON'T FEAR FORKS; THEY ARE INEVETABLE

There's been some panic lately over the various "forks" of the Bitcoin network, particularly among the less tech-savvy who hear inaccurate or incomplete news on the mainstream media. It's important to clear up some confusion, because there are more so-called "forks" coming.

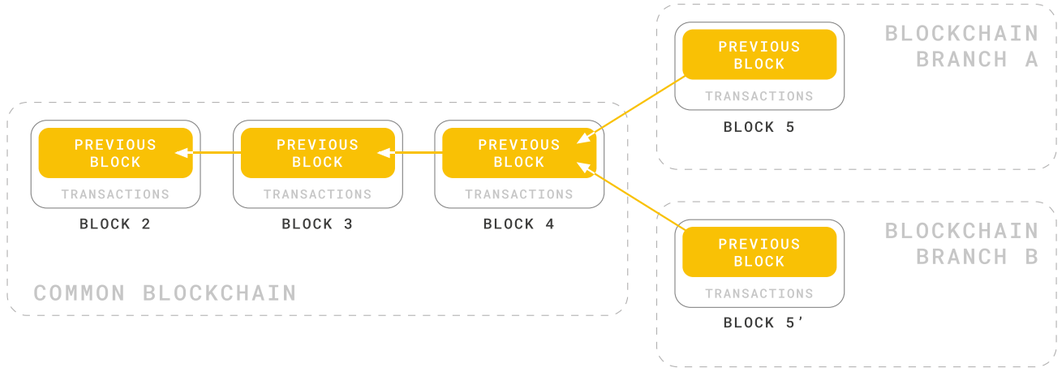
First, the most important thing to know is this: there will only ever be 21 mln Bitcoin in existence. Period. End of story.



There have been and will continue to be currencies that fork from the Bitcoin network, taking with them a full snapshot of the network up until that point. Yet there's still only one Bitcoin. Bitcoin Cash, Bitcoin Gold, Bitcoin-anything-else, none of them have interoperability with the real Bitcoin network.

Bitcoin skeptics have been telling people that with the Bitcoin Cash fork, there will now be 42 mln Bitcoin in existence. It won't be long before they start claiming that with the upcoming Bitcoin Gold fork, there will ultimately be 63 mln coins in existence. This is complete falsehood.

Bitcoin Cash and Bitcoin Gold cannot be spent on the Bitcoin network. As far as Bitcoin's network is concerned, they are merely altcoins like Litecoin, Dash, and so on. They are not Bitcoin and cannot make the argument that they are. There is only one Bitcoin, and there will only ever be 21 mln coins on that network.



The difference between a fork and chain split

Many less sophisticated investors get worried every time they hear about an upcoming fork. Calm down: there's nothing wrong with a fork. Bitcoin and numerous altcoins have successfully forked countless times over the years with no ill effects. In fact, the currency Dash executes a carefully staged hard fork (called the "spork") every time it does a protocol upgrade. None of these forks have ever caused a chain split.

There are two types of forks: soft forks and hard forks. Soft forks are backwards-compatible, meaning that upgraded nodes can use the new features, while old nodes will still function but won't have the new capabilities. Bitcoin's recent SegWit upgrade is a great example of a soft fork.

With SegWit, not all nodes were required to upgrade their software. Anybody who doesn't want to use SegWit's features (namely, lower fees) is free to continue using their older version of the Bitcoin client. It will still work just fine.

A hard fork is the exact opposite: all nodes must upgrade. Any node that doesn't upgrade will simply not work anymore. The real danger is this: soft forks are reversible, because following the new rules is optional. Hard forks are not reversible, and any bug in the code or unanticipated behavior on the network can only be fixed by issuing another hard fork. This can lead quickly down a deep rabbit hole.

The worst-case scenario in a hard fork situation is a chain split. A chain split occurs when a hard fork goes poorly and the network itself splits in two. Part of the network follows one set of rules, while the other part follows another set of rules. Chain splits are incredibly dangerous and essentially make the network unusable until the split is resolved by another hard fork. With a network and economy as large as Bitcoin's, it would be extremely difficult to execute a follow-on hard fork to fix a chain split.

A bad enough chain split could literally kill Bitcoin.

Fork vs. airdrop

While Bitcoin Cash and Bitcoin Gold are technically forks of Bitcoin, they don't affect Bitcoin's network in any way. They are not a threat in any way. They simply use (most of) Bitcoin's code, and they distribute their currency proportionally to all Bitcoin holders.

Considering that the term "fork" is usually associated with an attempt to upgrade a network, using that word to describe Bitcoin Cash and Bitcoin Gold tends to get quite confusing for novices. A better word might be "airdrop."

An airdrop is a means of distributing the initial supply of coins when an altcoin is created. Byteball is a great example; users link their Byteball address to their Bitcoin address(es), and at certain times, they receive a number of Byteball tokens proportional to their Bitcoin ownership. Given that the only thing Bitcoin Cash and Bitcoin Gold are using the Bitcoin Blockchain for is initial token distribution, they really act more like airdrops than forks.

Don't worry. None of these forks in any way harm the Bitcoin network. They aren't increasing Bitcoin's supply. How could they? They aren't Bitcoin!

What's Bitcoin Cash?

When it became obvious the SegWit solution was going to be the winner in Bitcoin's civil war, a group of disgruntled developers decided to create an alternate version of Bitcoin. This version, called Bitcoin Cash, would keep Bitcoin's entire transaction history and all of its rules and structures. Only three things would be changed: the 1 MB blocksize limit would be increased, the SegWit code would be removed, and an "emergency difficulty adjustment" (EDA) was added.

Due to the nature of the fork, everybody who owned Bitcoin now owned an equivalent amount of Bitcoin Cash. Yet the two networks did not directly compete with one another. For one, Bitcoin Cash added a feature called "replay protection," which prevented transactions on one network from affecting the other network.

Another reason for the lack of direct competition is because virtually all Bitcoin's miners continued to mine Bitcoin, except for a few hours here and there when they were able to exploit Bitcoin Cash's EDA for greater profits. Most Bitcoin owners, finding themselves flush with Bitcoin Cash, either sold the new currency or completely ignored it.

There was never any danger of Bitcoin Cash replacing Bitcoin. In fact, Bitcoin Cash was probably a good thing in the long run, because it removed discontent from the Bitcoin community by giving them their own altcoin to run.

What's Bitcoin Gold?

Bitcoin Gold is an upcoming fork of Bitcoin that will occur on or around Oct. 25, 2017. As with Bitcoin Cash, when the fork officially occurs, Bitcoin owners will also possess an equal number of Bitcoin Gold coins.

As with Bitcoin Cash, Bitcoin owners who find themselves in possession of Bitcoin Gold may either do nothing and keep the new coins, or may sell them and potentially increase their stash of Bitcoin (assuming the new coin is worth anything).

Just as with Bitcoin Cash, Bitcoin Gold will be an altcoin. Bitcoin Gold will feature replay protection as well, and since virtually no miners will leave the Bitcoin network to mine Bitcoin Gold, it will not threaten Bitcoin's network in any way. There is zero chance that Bitcoin Gold will "take over" or "kill" the main Bitcoin chain.

Bitcoin Gold is a protest of the growing power and centralization of miners. Bitcoin miners continue to use more and more powerful specialized ASIC computers to mine Bitcoin. These ASICs are extremely expensive and benefit greatly from economies of scale, resulting in greater centralization on the Bitcoin network. At present, a handful of miners (or mining pools) control the majority of Bitcoin's mining power. Bitcoin Gold will be changing the consensus rules for its new network by using a different algorithm for mining. This change in algorithm will keep ASICs from working, resulting in miners using easier-to-obtain GPUs. This change is expected to decrease miner centralization on the Bitcoin Gold network.

Again, it should be emphasized that Bitcoin Gold will not affect Bitcoin in any way. Bitcoin Gold will be an altcoin, with its own network and its own rules.

LIFE

THE VIEW FROM THE OUTSIDE

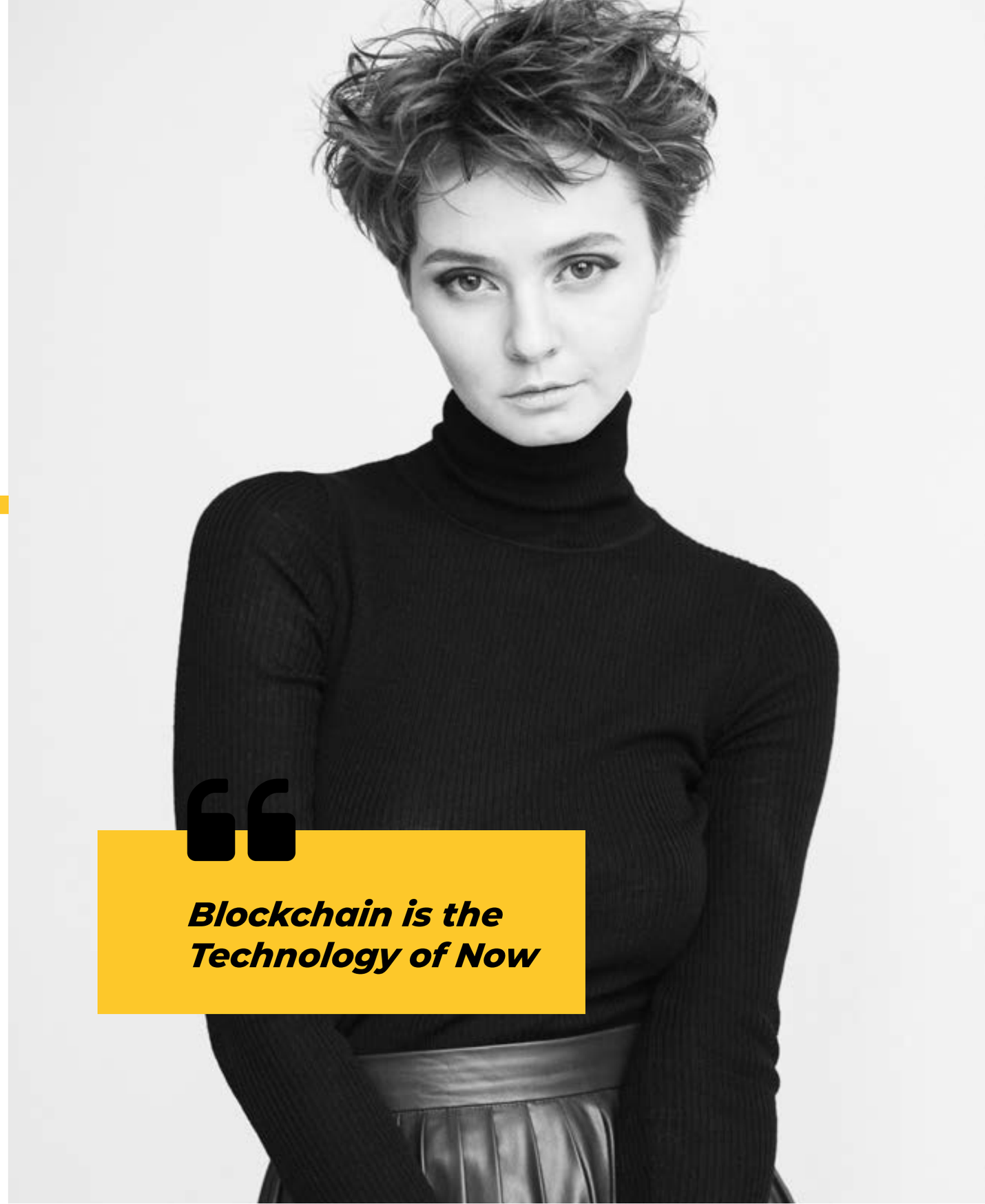
A NEW GENE IN BLOCKCHAIN'S DNA

One can compare today's blockchain (which we believe will continue developing) with Windows 3.1. It's almost impossible to look at it without crying. The most significant breakthrough in Internet technology is also a pimpled geek.

The blockchain needs a new gene pool. This gene pool should be as different as possible from the existing one to produce worthy offspring. Just think, an expanding gene pool can force a shark to swim to the other end of the world to procreate.

There is a market that inhabits a world so different from blockchain that even the wildest of fantasies wouldn't pair them together: the fashion-model market.

The Cointelegraph talked to a model, Annelia Garifulina, not just for the sake of an attractive photoshoot in the magazine, but to show that blockchain and models share a common ground.



> ***Blockchain is the Technology of Now***

ANNELIYA 利亞

A former model, economist, blockchain ambassador and TV host from Taipei talks about chinese mentality and reflects on the future of the cryptoworld.

Anneliya moved to Moscow from Taipei two years ago, after having worked on Taiwanese TV and obtaining a sizeable army of fans. Hanging out with friends who work in the IT industry, she has been familiar with the crypto-world since as far back as 2011.

Furthermore, she is employed as a blockchain ambassador at **Botanico.co**, the crypto-first model agency providing the environment for women to integrate themselves with the crypto community. Botanico also hires out models for ads and promotional campaings. This will help to draw attention to the project making the blockchain industry more vivid.

Today, the Cointelegraph spoke with Anneliya Garifulina about blockchain and what it has to do with modeling.

WHAT WAS YOUR FIRST REACTION AFTER BECOMING A BLOCKCHAIN AMBASSADOR?

When Botanico asked me to join the Blockchain Ambassadors, I was impressed with the bold idea of making the geekiest sphere beautiful. To be honest I do think IT is sexy, and of course I agreed to participate. I thought that now I am in the area on everyone's lips. That's pretty cool too.

WHAT DID YOU DO IN TAIWAN? WE KNOW YOU WORKED THERE FOR QUITE A WHILE.

The first time I visited Taiwan, I fell in love with the country and the culture. At some point, I decided to move and stayed there for five years. I started learning Chinese and managed to start speaking it after two months of studying.

IS IT REQUIRED FOR A MODEL WORKING IN TAIPEI TO LEARN CHINESE?

Not really. But I was a featured guest on a Taiwanese talk show for students, so I had to speak to draw attention to my personality. It worked out because I got quite popular on Facebook.

ANNELIYA, YOUR EXPERIENCE SEEMS EXTRAORDINARY, BUT HOW ON EARTH DID YOU GET INTERESTED IN BLOCKCHAIN?

I personally google pretty much everything because I am curious. Technology never scared me and I never had trouble, let's say, setting up a router by myself. I got familiar with Bitcoin back in 2011.

> ***Chinese will find a way to be in the business even if it's banned.***

WHO INTRODUCED YOU TO THE CRYPTO INDUSTRY?

I have many friends who work in the IT industry, and I am pretty sure I first heard the term blockchain from them when it was not as spread-out as now.

WHAT IS YOUR PERSONAL UNDERSTANDING OF BLOCKCHAIN?

I know that it helps with transactions and operates as a set of blocks with data. But from what I see in the media, the possibilities for blockchain are endless and it can influence almost any businesses. My friends and I want to believe this innovation will make the world better soon.

HAVE YOU HEARD THE RECENT NEWS ABOUT CHINA BANNING ICOS?

Yeah, that's another interesting thing. China is basically trying to ban money and power. The government got scared of such a vast expansion and I think, eventually, it may lead to the prosperity of the black market.

SINCE YOU ARE FAMILIAR WITH THE NATION AND ITS TRADITIONS, WHAT IS YOUR PERSONAL OPINION ON THE IMPACT OF THE BAN?

From my experience of Chinese mentality, the Chinese will find a way to be in the business even if it's banned. That's how it works. As far as I know, a quarter of all funds raised by ICOs are Chinese. It seems like they believe in the industry the most, and the ban might not stop them.

BOTANICO HELPS MODELS INTRODUCE THEMSELVES TO THE BLOCKCHAIN INDUSTRY. HOW DO YOU THINK BLOCKCHAIN AMBASSADORS THEMSELVES CAN HELP THE INDUSTRY IN RETURN?

It's a legit idea. Beautiful faces are needed for blockchain and the models are happy to help. But what's more important this industry must have a human face, people should not be scared of the complexity of Blockchain. I want them to look at me and think: 'Well, if she understands it, I can understand it too".

Photo: Anisia Kuzmina

POWERED BY
THE COINTELEGRAPH

500 MILLION USERS AFFECTED EVERY MONTH BY PIRATES TO MINE CRYPTO-CURRENCY

Experts at AdGuard have suggested that the new phenomenon that has seen a couple of sites caught using website visitor's CPU power to mine cryptocurrency, may in fact be a bigger issue than first believed.

First, there was illegal torrent site, The Pirate Bay, that was shown to be secretly mining Monero through Javascript; a way for them to increase their revenue separate from advertising. Then, it was online streaming site, ShowTime, that also exhibited the same Javascript.

However, the pirate mining pandemic seems to be much larger as AdGuard have suggested that over 220 sites are actively, and mostly secretly, doing it, affecting over half-a-billion users a month.

#expertopinion

CoinTelegraph

Hi, there! Do you remember a recent story about web mining hidden on PirateBay? What do you think about the effectiveness of this method or a business model?

crypto_profi

Well, if the code is well written by the webminer, then in general it is OK.

Such a script, of course, always needs to be tested. There could be a lot of invalid shares. But if there is a possibility, then it's better to insert such code, let the users drop a penny for you :)

CoinTelegraph

Do you think this is ethically acceptable?

crypto_profi

It would ethically acceptable ethically, if the user is warned about it; ideally if he agrees.

In this case users can complain about you, you could be disliked. On the other hand, you can earn some fame on it.

CoinTelegraph

In terms of?

crypto_profi

Well, in the newspapers they will write that you are a fagot :)

Write a massage...

Solving math problems

Many of these sites, especially the ones that have come forward and admitted that they are using users' CPU power to mine cryptocurrency, are using things like CoinHive and JSEcoin.

These scripts work in their browsers to verify blockchain transactions, which tend to require significant computational resources. In the last three weeks, AdGuard estimated that the people behind these schemes have made approximately $43,000.

The likes of CoinHive have expressed their dissatisfaction with the secretive nature that many sites have gone about things when it has come to using their script. In fact, many responded to The Pirate Bay, after they came clean, saying they don't mind, as long as they can give consent.

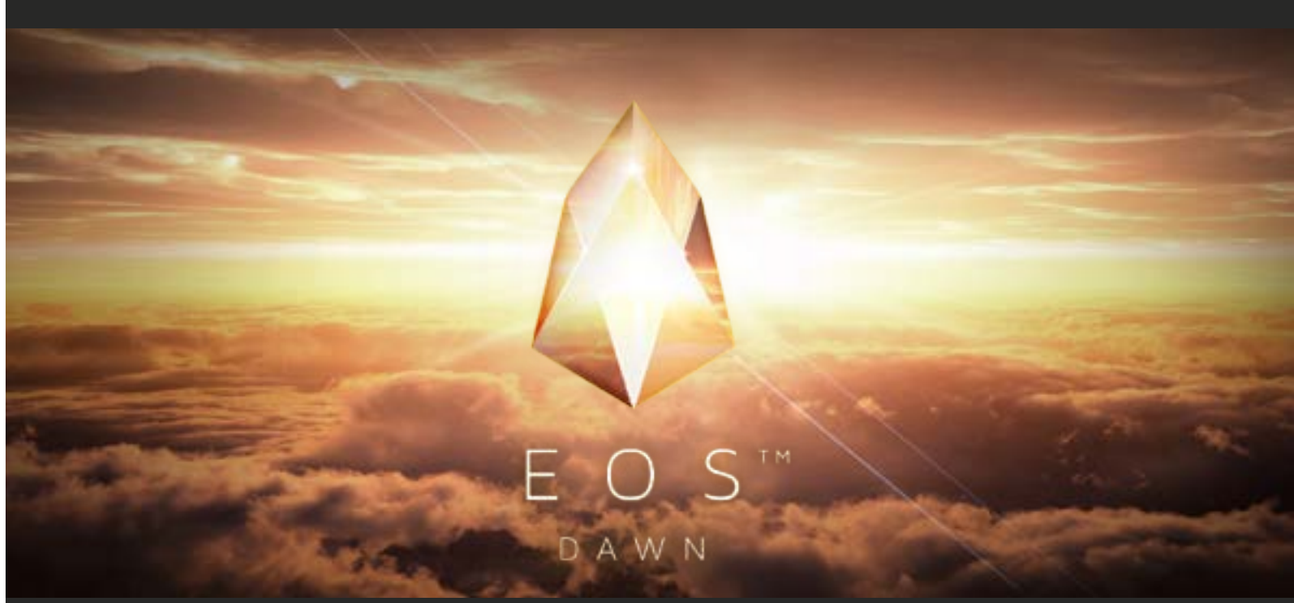
Coinhive publicly asked those using its script to adopt a permission-based model, but it may be impossible to make such requests compulsory. Although this mining is not as malicious as infecting users with Malware, it still puts additional strain and wear-and-tear on people's' CPUs.

Surprising for the operators

Because cryptocurrencies are such a hot commodity, the rush to get hands on them has seen many different and diverse methods crop up.

In fact, the purposeful implementation of scripts is not even the only way that Pirate miners are profiting.

PolitiFact, a fact-checking website, was running a script to mine cryptocurrency but has since removed it. The site is now conducting an investigation into the script's origins.



ANSWERS FOR THE COINTELEGRAPH

WHAT'S GOING ON RIGHT NOW IN EOS'S DEVELOPMENT? PLEASE BE AS DETAILED AS YOU CAN BE. AND WHAT ARE THE COMPANY'S PLANS FOR AFTER BLOCKSHOW UNTIL THE NEW YEAR?

The block.one team has been working relentlessly to make EOS.IO the most advanced blockchain software possible. While advancing the core software, we have also been working with a number of major players in the industry to migrate their platforms to make use of the EOS.IO software.

Our original roadmap called for a single-threaded implementation to be completed by June 2018, and for multi-threaded development to take place thereafter. We are excited to announce that work on the parallel execution engine has begun 8 months ahead of schedule and we believe that it will be ready by June 2018. The work required to make this happen includes a complete rewrite of chainbase, the underlying database technology behind Steem.

Other developments include the implementation of a new shard-aware database that is designed to enable multiple threads to access independent memory regions (called shards) at the same time, the development of a multi-threaded key recovery service that will accelerate the rate at which transactions can be validated compared to our existing single-threaded approach, and carefully crafting the structure of our merkle trees to make proofs meaningful and efficient.

After BlockShow Asia we plan to release a public testnet where developers will be able to connect to a set of witnesses running on our servers, as well as write and test DApps.

WHAT'S YOUR OPINION ON CONFERENCES LIKE BLOCKSHOW AND THE PART THEY PLAY IN BRINGING TOGETHER AND EDUCATING THE THE BLOCKCHAIN COMMUNITY? PLEASE, DO SHARE YOUR VISION.

Conferences and meetups are the heart and soul of the blockchain community. Conferences like BlockShow Asia create a space that allows people, no matter what their current level of blockchain knowledge, the time to meet with others that may have a shared vision or philosophical view of the world and where this technology can go. It also gives industry leaders the chance to come together and lay the framework that will revolutionize the future of business. That is a very powerful thing.

DO YOU THINK IT'S IMPORTANT TO BUILD BRIDGES AND ESTABLISH A FAR-REACHING DIALOGUE BETWEEN THE ASIAN AND GLOBAL BLOCKCHAIN ECOSYSTEMS? WHY DO YOU THINK SO?

Absolutely. Fundamentally, blockchain is based on the idea of freedom of speech and giving power back to the individual. It's about making change and making improvements. By bringing people together from around the globe with a shared vision of where this technology can go, we can build really powerful systems that can change the world.

TOP UNIVERSITIES PROVIDING BLOCKCHAIN COURSES

A NEW SUPPLY FOR A NEW DEMAND

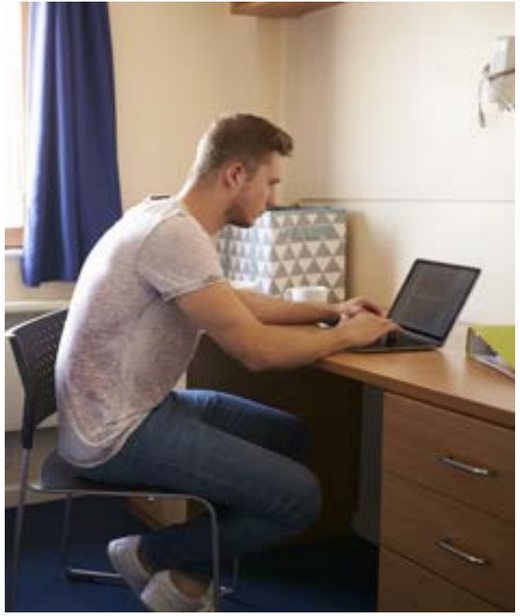
As the market cap for cryptocurrencies grows each day, it becomes harder and harder for the world to ignore this bu яrgeoning market. The financial industry currently has a large demand for blockchain specialists and cryptocurrency experts, the only problem is, there is not a large enough supply of workers to meet that demand.

Why the insufficient supply?

Bitcoin was launched in January 2009. The cryptocurrency is not even ten years old yet - it's not too surprising to learn that many people are unaware of blockchain technologies and their benefits, hence why the supply of blockchain and cryptocurrency specialists does not currently match the demand.

That is why universities around the world have been implementing blockchain and cryptocurrency-related courses and clubs to adequately prepare their students for jobs in the industry that will be the future of banking and finance.

In the US, NYU Law, Duke, Princeton, Stanford, and UC Berkeley are just a few among the many schools implementing such courses. Some of the titles of these courses are Digital Currency, blockchains and the Future of Financial Services (NYU Law), Bitcoin and Cryptocurrency Technologies (Princeton), Cryptocurrencies, blockchains, and smart contracts (Stanford).



In Europe, the University of Cumbria, B9 Lab Academy, IT University of Copenhagen, and University of Nicosia are just a few of the higher-learning institutions that have implemented such courses; in Russia, Moscow State University of Economics, National University of Science and Technology, and Moscow Institute of Physics and Technology have done the same.

Not only is crypto becoming so large that it's attracting the attention of scholars, students who have taken an interest in the future of money and banking have been launching their own initiatives to make their peers aware of what the future of monetary transactions will be.

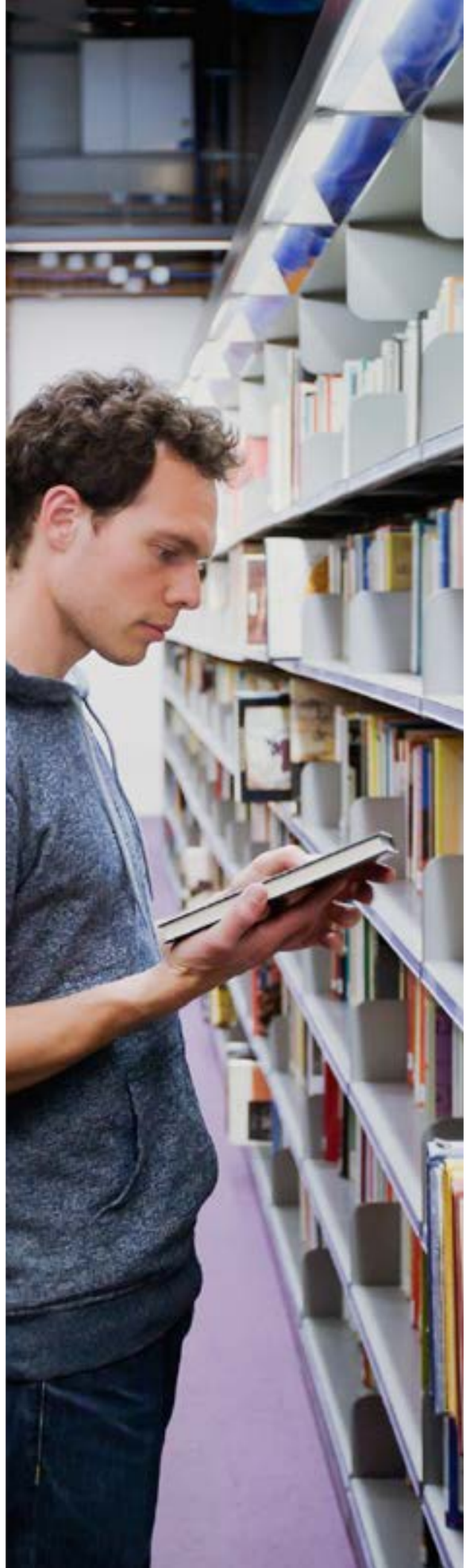
Derek Strauss, a Junior at Florida State University (FSU), is currently in the process of establishing a cryptocurrency club at FSU. Strauss said how he made the decision to create a cryptocurrency club:

> ***"I went onto our school's organization website and realized nothing existed. After discovering there currently wasn't anything, it inspired me to create a club to share my passion of cryptocurrency with other students. I wanted a place where I could help other students learn about an emerging industry and the technology behind it."***

Similar to Strauss, there are many students taking initiative to spread knowledge that will be essential to the future of transactions. The BlockChain Education Network has been partnering with students who've created Blockchain/cryptocurrency related clubs and groups for quite some time now.

What prompted the spike in demand?

In 2007 and 2008, it was believed that banks were too big to fail... in 2009 we learned that was horseradish. Financial institutions around the world are realizing that the future of money is not fiat. Fiat was great - in the late 1700's when Alexander Hamilton proposed that America needed a replacement for specie - but it's now 2017, fiat has become inefficient and outdated. Similar to when your office decided to go paperless when Earth's environment issues became a concern, soon, financial institutions will be going paperless (fiat-less), to make transactions in this world less costly and more efficient. To accomplish this, financial institutions around the world know it is necessary for them to have a Blockchain team... and you can't have a Blockchain team unless you have a group of people who are knowledgeable or have been properly educated on the matter.



What this means for the future?

When I asked Strauss what he believed the future of cryptocurrency to be, he replied, "I foresee a shift [from fiat] in the future. [I think] People [will be] using cryptocurrency to purchase goods and services. Companies such as Overstock have already been accepting Bitcoin for a number of years now. Although, I do believe cryptocurrency will eventually be used as a means for payments, I think in the short term we will see the implementation of Blockchain technologies. Considering that IBM and Microsoft have been implementing Blockchain into their companies, you have to take note that other major corporations will be likely to follow so they are not left behind."

... No institution wants to be left in the dust due to one of their competitors, and that is why more and more financial institutions are looking to hire a Blockchain team. That is why more and more universities around the world are implementing Blockchain and cryptocurrency related courses, clubs, and groups.

In 2007 and 2008 , banks were "too big to fail"; in 2009 America learned that was not true. In 2017, Cryptocurrency is too big to continue to be ignored, and each and everyday the world is learning just how objective that is.

BUSINESS

HOW ARE NEW BITCOINS CREATED?

A BRIEF GUIDE TO BITCOIN MINING

Bitcoin is often compared with gold, and one of the chief factors of similarity it the way they're both obtained. Similarly to gold, new Bitcoins are created via the process called "mining."

In fact, Bitcoin mining has a two-fold purpose: it allows for the creation of new coins and facilitates the processing of transactions in the network.

Another parallel with the precious metal is that there's a limited amount of Bitcoins that can ever be mined: no more than 21 mln coins. As of 2017, nearly 17 mln Bitcoins have already been mined.

Mining can be quite a competitive task as new Bitcoins are created at a predictable and fixed rate. Those rates have been defined by Satoshi Nakamoto, the creator of Bitcoin, in the white paper published in 2008.

The more miners join the network, the more difficult it becomes to make a profit for each of them. Because of that, miners have to remain highly competitive to keep receiving Bitcoins as a reward for validating the transactions.

Similarly to gold, new Bitcoins are created via the process called "mining."

What you need to start mining

Bitcoin mining is the process of adding records of a new transaction to the Blockchain - the public ledger of all transactions that have ever taken place in the Bitcoin network.

New transactions are added in batches called "blocks" roughly every 10 minutes, hence the name Blockchain. The ledger is needed for the nodes of the Bitcoin network to always be able to confirm valid transactions.

In order to become a Bitcoin miner, a person first needs a computer and mining software - like the GUIMiner. This program uses the computer's resources to perform complex mathematical calculations.

When any one miner succeeds in solving their math problem, they get to create a new block and receive a certain number of Bitcoins as a reward, known as "the block reward."

Every 210,000 blocks, or, roughly, every four years, the block reward is halved. It started at 50 Bitcoins per block in 2009, and in 2014 it was halved to 25 Bitcoins per block. However, mining on personal computers was only feasible in the early years of Bitcoin. By now, the network is so competitive, that using specialized hardware is the only way to make a profit.

The first ASICs - or Application-Specific Integrated Circuits - were introduced in 2013, designed specifically for the purpose of mining from the start.

Despite the existence of such specialized equipment, the situation didn't become easier for miners, as new, more efficient ASICs are released all the time. And the problem of paying for electricity bills is only exacerbated by the new, power-hungry hardware.Nowadays there are many prominent companies which design and produce mining hardware. Among them, are Bitfury, Bitmain. You may also find used equipment on eBay or Amazon.

So, to recap, miners use their hardware to verify valid transactions, pack them into blocks, solve mathematical problems during the process which is called "hashing," and, after getting a correct solution, add new blocks to the Blockchain.

WHAT IS GUI MINER?

GUIMiner is a graphical frontend for mining Bitcoin, providing a convenient way to operate Bitcoin miners from a graphical interface. It supports both AMD and NVIDIA GPUs, as well as CPU mining. You can choose between pooled mining and solo mining – the software embeds a list of mining pools to choose from.

What is 'hashing'?

Bitcoin uses a cryptographic hash function SHA-256 for encryption. This algorithm allows you to take data of any size and turn it into a string of a specific, predefined size. The resulting string is called a "hash," and the process of applying the hash function to random inputs is called "hashing."

It's impossible to predict what the hash of any one input will be until you actually calculate it. The goal of the miners is to keep feeding the hash function with different inputs until they get a specific hash value which is below a certain threshold, which is called the "difficulty" of network. The difficulty is automatically adjusted every 2016 blocks - or, roughly, every 14 days - in accordance with the growing or shrinking combined computational power of the network.

If the network became more powerful over the last 2016 blocks, then the difficulty value is decreased to make it harder to find a valid hash and vice versa.

Considering the immense computational power that the Bitcoin network currently employs, it takes trillions of computer-generated guesses from all over the world until the right hash value is found by someone. And if you are the first to do it - congrats! You have just mined a block and got a reward of 12,5 Bitcoins.

Pitfalls to avoid in mining

As with any other activity, mining has some pitfalls to avoid. Let's take a closer look at some mistakes usually made by newbie miners:

1

You shouldn't start mining without preparations. Given that it is a highly competitive sphere, profitable mining requires thorough planning and preparation. Many examples can be found of people, who had bought too much hardware equipment without calculating all the costs of running it and the likely profit rates. After finding out that they can't maintain profitable operations with their equipment, these unfortunate miners usually have to re-sell it at a large discount.

2

You also shouldn't follow the hype and mine whatever coin that is the most trendy at the moment. From time to time, one coin or another will get overhyped, and a lot of new miners will start pouring in, driving the difficulty of its network up. As a result, mining becomes very hard for everyone, and almost no one manages to make a profit. This scenario has taken place recently with Ethereum, for example.

3

What you should do, is take good care of your PC. Mining places a huge load on the computer's processors, which have to run at full capacity all the time. If done without proper care, it might cause hardware malfunctions.

All in all, mining is both a difficult and profitable business to get involved in. But if you're going to try it - good luck to you!

BUSINESS
INTERVIEW

BRINGING E-GOVERNANCE TO BLOCKCHAIN

VALERY VAVILOV
BITFURY CEO

> ***Our foremost focus is on security which Blockchain and cryptocurrency is the most secure, reliable and efficient.***

The Cointelegraph spoke to Valery Vavilov, BitFury CEO, about mining, government Blockchain implementation, the first SegWit block mined and future plans of his company. Bitfury is one of the leading blockchain technology companies and one of the largest private infrastructure providers in the blockchain ecosystem. It develops software and hardware solutions for businesses, governments, organizations and individuals to move assets across the blockchain. The company believes the blockchain can open new doors for global economic opportunity and prosperity and advance the peer-to-peer economy and the Economy of Things.

WHICH CRITER IA DO YOU USE WHEN YOU CHOOSE WHICH CURRENCIES YOU ARE MINING?

Our foremost focus is on security which blockchain and cryptocurrency is the most secure, reliable and efficient. At the moment, we think Bitcoin is the most secure, reliable and efficient cryptocurrency with enormous potential to transform our world for the better.

DON'T YOU THINK IT IS TOO LATE TO BEGIN A MINING BUSINESS FOR ALL THE INDIVIDUALS AND BUSINESSES NOW? IF NOT, WHICH STEPS SHALL PEOPLE TAKE TO BEGIN?

It is not too late for an individual, business or even country to begin mining. The industry is still growing as more and more people use Bitcoin. And the future looks as promising as the present, as miners will move away from block rewards and into transaction fees, which will encourage even more to begin Bitcoin mining. We offer our cutting edge 16-nanometer chip and our enterprise-grade BlockBox, which allows you to almost immediately plug into the Bitcoin blockchain and begin mining.

WHAT IS ROI IN MINING?

We do not disclose our financial figures but one of the best return on investment benefits from mining the Bitcoin blockchain is knowing you are helping secure a new technology that is being increasingly used for more than just currency.

WHERE DO YOU RECOMMEND TO PLACE (GEO-WISE) FARMS FOR MINING? WHERE DO YOU PLACE YOURS?

Our mining data centers are located in the Republic of Georgia and Iceland.

BITFURY HAS RECENTLY SIGNED A DEAL WITH THE UKRAINIAN GOVERNMENT. WHOSE IDEA WAS THAT? HOW DO YOU SEE THE FUTURE OF UKRAINE WITH BLOCKCHAIN INTRODUCTION?

Our discussions with Ukraine started in late 2016. Given the success we have found with land titling and now broader e-governance in our partnership with the Republic of Georgia, we are happy to expand to another government serving more than 45 mln people. Our goal is to bring the entire country's e-governance system to blockchain, including existing e-services and government services that still need to be digitized.

The project will begin by introducing blockchain into Ukraine's existing e-governance platform. By e-governance, we mean government services provided online – which can benefit significantly from the security and efficiency of blockchain technology. Ukraine already has online "e-services" for many government agencies like business registrations, public procurement, construction licensing and more. The goal of our project is to bring blockchain to the existing e-government services (like those I mentioned) and bring other services online using blockchain to improve government efficiency and transparency.

TELL US MORE ABOUT YOUR PARTNERSHIP WITH THE REPUBLIC OF GEORGIA.

The Bitfury Group and the National Agency of Public Registry (NAPR) successfully implemented a custom-designed blockchain system that is now integrated into the digital records system of NAPR. This private, permissioned blockchain is anchored to the Bitcoin blockchain through a distributed digital timestamping service.
Distributed digital timestamping allows NAPR to verify and sign a document containing a citizen's essential information and proof of ownership of property.
This important timestamping service also allows citizens to ensure their documents are legitimate without exposing confidential information. This is possible by providing citizens with unique documentation known as a "hash."
This document hash is published to the Bitcoin blockchain and can be verified whenever a request is made, benefiting from the Bitcoin Blockchain's unmatched security.
This groundbreaking project is expected to continue to include smart-contract capabilities to streamline business operations for NAPR, including the sale of property, transfer of ownership and more.

WHAT ARE THE BENEFITS TO IMPLEMENTING BLOCKCHAIN IN GOVERNMENT REGISTRATION AND TRANSACTIONS?

Blockchain technology first provides an unmatched level of security. A property registry built on the blockchain can secure billions of dollars in assets and make a significant social and economic impact globally by addressing the rapidly growing demand for transparency and accountability.
A blockchain-based registry also allows governments and individuals the ability to audit quickly. Finally, a blockchain-based registry allows for substantial reductions in the cost and time required to register and transfer property.

ARE GOVERNMENT ORGANIZATIONS YOUR MAJOR CLIENTS? DO YOU ALSO COOPERATE WITH INVESTMENT/TRADING RELATED COMPANIES, SUCH AS FX BROKERS AND INVESTMENT BANKS?

Our company focuses on advancing any industry, sector, institution or government through the use of Blockchain technology. From EY to the Republic of Georgia, to the government of Ukraine, we are building all different kinds of partnerships around the globe as our industry rapidly evolves.

IN MARCH BITFURY MINED ITS FIRST SEGWIT BLOCK WITH BITCOIN IMPROVEMENT PROPOSAL (BIP) 148. WHY DID YOU DECIDE TO GO WITH SEGWIT?

Bitfury extensively researches and tests blockchain/Bitcoin software, and has issued white papers on many topics including block size, incentive mechanisms, Proof of Work and Proof of Stake consensus and the Lightning Network. Since 2014, the position of the Bitfury Group Bitcoin blockchain remains the same regarding the block size –

> ***The industry is still growing as more and more people use Bitcoin. And the future looks as promising as the present, as miners will move away from block rewards and into transaction fees, which will encourage even more to begin Bitcoin mining.***

> *We recently announced a joint venture with Credit China, which included a $30 mln investment in Bitfury.*

we believe the network should increase the block size gradually over time. This is why Bitfury currently supports Segregated Witness, hereinafter SegWit, which is a well-tested and efficient solution.
The main goal of all block-size discussions is how to increase Bitcoin's scalability and increase the amount of transactions that can be processed on the Blockchain. SegWit is one such solution. It provides better on-chain scalability, increases the effective capacity of the block and will allow the network to process more transactions. It also fixes some minor code issues and will make Bitcoin extensions like Lightning Network for instant payments and MAST for smart contracts on Bitcoin possible.
SegWit has been fully tested and supported by companies and it is ready and can be activated any moment. Other block size solutions would require at least six to nine months to be designed, fully tested and adopted by businesses.

DOES BITFURY HAVE ANY RECENT INVESTMENT NEWS TO SHARE?

We recently announced a joint venture with Credit China, which included a $30 mln investment in Bitfury.

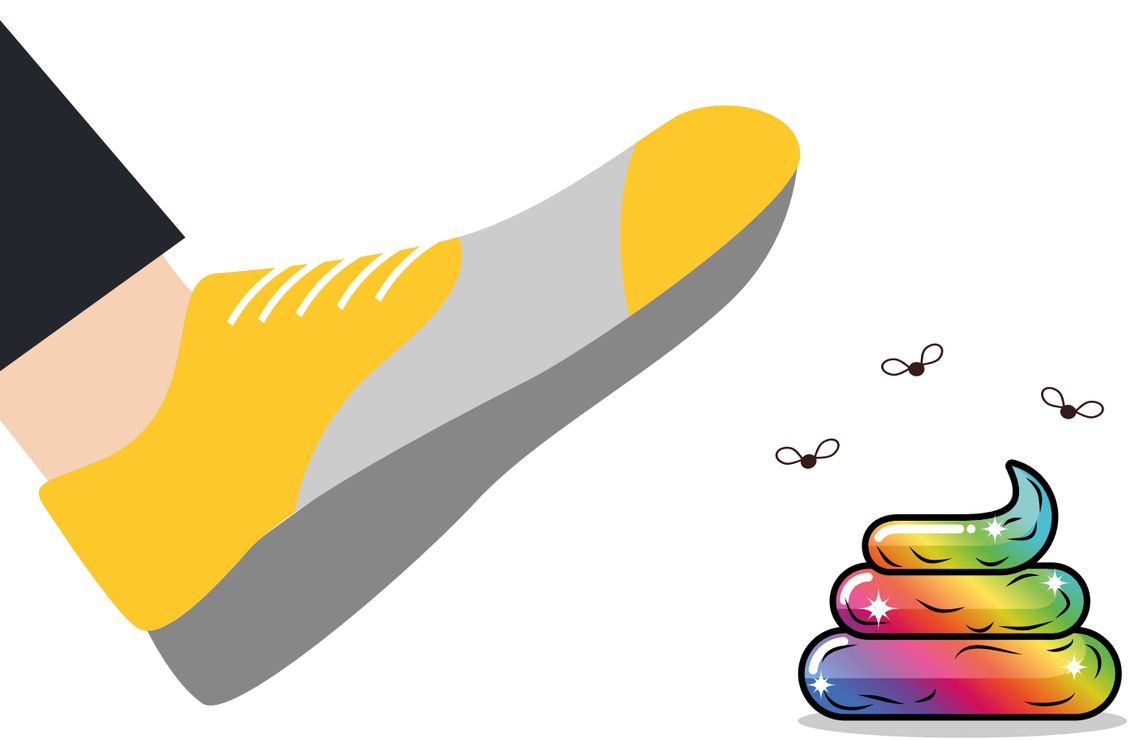
WHAT ARE THE PLANS BITFURY HAS FOR THE UPCOMING FUTURE? ANY EXCITING PROJECTS?

Besides our partnership with the government of Ukraine, we are excited to continue our partnership with the Blockchain Trust Accelerator to source and support Blockchain pilot projects for global good. The accelerator just announced its latest pilot with TechSoup at the US tech conference SxSW.We also launched the Global Blockchain Business Council in January 2017, and so far, this year we have launched chapters in Washington D.C. and China, with more to come this year.
Finally, in July 2017, we will be hosting our Annual Blockchain Summit on Sir Richard Branson's Necker Island. This unique gathering welcomes key global influencers in technology, civil society, and innovation to join a riveting discussion about the world-changing potential applications of the Blockchain including, but not limited to, cybersecurity, the sharing economy, voting and land titling.

POWERED BY
THE COINTELEGRAPH

YOUR ICO 1.0. GUIDE

The Internet can feel like a big, scary place but, as you explore the online universe, you can rest assured that the dubious pleasure of accidentally stepping in dog shit remains strictly the preserve of the non-virtual world. However, as you run into yet another ICO, it can sometimes feel as if a fresh turd has been squashed beneath your tread. That "ICO 1.0" can cause quite the stink if you happen to stumble upon it, with toxic fumes rising from its decaying body of amorphous vagaries and lack of investor interest. That's not to say that shit is without its benefits: flies depend on it, and flowers just can't get enough of it. The ecosystem thrives on excrement so, as environmentally friendly people, we have provided a guide on how to defecate your very own ICO 1.0.



Pretty landing page

So, where do people first encounter such a brilliant thing? Why, on a cool landing page of course! Follow these simple steps and you will have your very own amazing landing page in no time.

1. Every cool landing page worth its weight in gold needs some statistics. Slip in a few numbers, even if they are of only passing relevance to your project. It will look significant and impressive.

2. To maximize your powers of persuasion, it is strongly advised to mention as many positive reviews as possible.

3. Like in every healthy and prosperous relationship, a direct line of communication is essential, and it is no different when it comes to the people who visit your page. Provide them with the opportunity to ask you something in a pop-up chat.

4. Finally, use "particles" as an animated background image. Everyone should know what your business is all about: blocks, connection and blockchain!

Add gamification to your tokensale

Purchasing tokens should be exciting - give the users what they want!

1. Everybody loves a sale. There are no limits to the number and type of discounts that your beautiful mind can create, so get to work! Discounts should vary from one group of people to another. For example, users, whose IP ends with 5, receive 5% discount. Users, whose IP ends with 3, receive 24% discount. Obviously.

2. Feeling adventurous? ICO 1.0. suggests you participate in a freaky auction. A Vickrey auction will do the trick: the participants submit bids without knowing anything about how much others have bid. How fun does that sound?!

3. Last but not the least: ICO duration should be tied to the lunar calendar. It usually starts with a new moon. (If you are going to take part in a few ICOs at a time, you should follow the lunar calendar; do not miss the best projects!)

Impressive white paper is essential

Important ICOs usually have fancy white paper talking about blockchain. Yours should too.

1. Start your white paper with a brief overview of the entire history of blockchain. Do not forget to include Satoshi Nakamoto's story, he is already canonical!

2. Use a few key but ultimately meaningless words: "Transparent! Trustless! Decentralization!". The more often you use the words, the better. It does not really matter why and how they are used.

3. Reiterate just how important your project is. Convince investors that every schoolboy will be using your service in the immediate future. Charts and graphics will help you to achieve this goal.

Express your philosophy

FAQ and Roadmap sections could be included in the white paper or posted on the cool landing page. One thing remains the same: both should be very philosophical.

1. FAQ contains a lot of answers about your inspiration and crypto-Jedi ways. Let people understand how you see crypto-culture. If they understand you, details will not be very important.

2. Last but not the least is Roadmap. Roadmap is how you plan to spend the treasure launched on your ICO.

ARE YOU TIRED OF IT?

And what if you are fed up to the back teeth of ICOs 1.0: sophisticated-sounding, but ultimately bullshit ? Pay attention to ICO 2.0 which is conducted by BlockShow.

More information is available on **blockshow.io.**

NEW CRIMINAL COIN REALLY IS WHAT YOU THINK

So many ICOs, so many Tokens. The Cointelegraph caught up will serial offender Ray 'the fence' Pinkerton who has just launched Criminal Coin to find out how it works

RAY, WHAT IS THE IDEA BEHIND CRIMINAL COIN?

Ray 'the fence': It's quite simple really. Do you know how hard it is to convert stolen goods into money? Very, and I should know...

I ASSUME THAT IS WHY THEY CALL YOU 'THE FENCE'?

Hard working robbers come to me to move their goods and make em liquid, to give em some dosh. But it ain't easy. So I needed a mechanism and decided to launch Criminal Coin and do my own ICO.

HOW DID IT GO?

Well, as you can imagine there are many robbers and people that steal our stuff, many industries that rob us of our hard earned money and people are fed up.

YOU MEAN BURGLARS?

No, I mean bankers, financial advisers and yes robbers, fraudsters...as most large organizations and institutions steal from us one way or another. They are no better than the average 'cat burglar' in many ways they are worse because they hide behind so called rules and regulations that don't protect anyone

SO WHAT DO INVESTORS RECEIVE WHEN THEY BUY A CRIMINAL COIN

We are calling it CrimCoin as it has a nice ring to it don't yu fink. Each CrimCoin costs £0.25pence in the Queens money and investors get access to our CrimExchange services, where stolen goods are available to buy a bit like how eBay works. But the currency of the exchange platform is CrimCoin and once you invest, you can buy the stolen goods with CrimCoins. Robbers open up an anonymous account and put up their goods up for sale. Apart from your normal household goods, TVs, HiFi and computers we are finding a lot of stolen pensions, mortgage product and asset backed financial products as they carry high-profit margins. We are getting a lot of car loans right now that are worth more than the cars. Nobody knicks cars anymore, who wants to steal a hybrid as they make rubbish get away cars.

SO ITS GOING WELL THEN RAY

RP: Very, although we did have some ex-banker chap who created loads of fake accounts and another chaps trying to rig the exchange rate of CrimCoin both we had to remove from the exchange. I am trying to run an honest business here and next year we go global as there is huge demand from overseas fellow 'fencers.'
Just think a global market for criminals to share and manipulate each other, making money from stealing wealth and assets from others...hardly original Ray as we have one of these - its called the Fractional Reserve Banking system.

> ***Ray 'the fence': It's quite simple really. Do you know how hard it is to convert stolen goods into money? Very, and I should know...***

> ***So what is the difference? Investment bankers do the same with our savings and pensions, they place bets and even if the bets don't work they take their fees and profits.***

NAUGHTY BOY KNOBBS

The Cointelegraph caught up with professional scammer and master mind of what many are calling fake ICOs Nigel 'naughty boy' Nobbs who explains how easy it is to get people to part with their crypto.

IT WAS GOOD OF YOU TO AGREE TO SPEAK TO US.

I don't have much time, you see those two blokes in dark suits. They work for the SEC and they hate me...

HOW MANY ICOS HAVE YOU SCAMMED?

I have been involved in several. It is not easy to get an ICO away and the 'crypto police' can give you a hard time if you are not prepared. ICOs are growing in popularity because people have made so much profit from crypto recently they are sitting on profits and they tend to invest in everything. All you need are a few geeks to front your business and you are away.

WHAT DO YOU MEAN EXACTLY?

The typical ICO investor is new to cryptocurrencies and don't really understand it. Although 99 percent of ICOs are genuine where the founders want to build something, normally a Blockchain of some kind, these new investors don't understand the documents they are reading. They don't make an effort to understand the technology or what management are trying to do.
On most ICO websites there are downloads of Business Plans, White Papers and Terms available. I did a survey of ICOs a found that less than 50% of investors downloaded the documents, and 50 percent of those people didn't understand what they were reading and did bother to join the Slack channel and ask questions.

SURELY THIS IS BAD FOR ICOS.

Well yes in a sense regulators are saying unsophisticated investors are being taken for a ride...But no because most people don't understand the financial products they buy today in so called regulated markets, for car leasing, mortgages, pensions and savings products. Even if you bother to read the T&Cs they are so long and complex you still have no idea of what you are really buying and there are so many caveats the financial industry can sell you a rubbish product that is aimed to protect them not you. Therefore ICOs are no different to any other financial product or instrument. Although some products you are forced to buy through legislation and the law – such as being insured. A good thing right. But the terms and conditions are geared for the organization to make money and only pay out if certain conditions are met. They look for reasons not to pay out.

WHAT YOU ARE SAYING IS YOU TAKE PART IN ICOS TO ATTRACT INVESTORS?

Yes exactly. We come up with an idea to reinvent an industry or build a new Blockchain and we don't know if it will work. Then we take the investors crypto and convert it into fiat currency to hire smart developers. Its called entrepreneurship. It's called breaking new ground. Inventing new things.
That's is exactly what insurance companies do. They design a new insurance product, but they don't know if it works until the claims come in. It is the best guess. Same for pension products, they have no idea if the pot of money you will have in say 25 years time is enough to live on. It's a scam of a different kind.

SO YOU ARE NOT RUNNING OFF WITH THE MONEY THEN?

Not at all.

SO WHY DID YOU CALL YOURSELF AN ICO SCAMMER?

I didn't, it is the regulators, bankers and VC community that call me an ICO scammer. As they believe all ICOs are essentially a bunch of weak propositions from young entrepreneurs where many of the projects will fail. Sounds like normal business to me.
Look at Venture Capital they bet one investment will win over nine failures. They are betting with investors money, it is a punt...but they take your fees, hook you up with expensive debt and take 80 percent of the equity... So what is the difference? Investment bankers do the same with our savings and pensions, they place bets and even if the bets don't work they take their fees and profits.

SO WHAT YOU ARE SAYING IS ICOS ARE A FAR BETTER OPPORTUNITY FOR EVERYONE.

Well, yes. With an ICOs nobody is forcing you to invest, no intermediary is making a decision for you and you can invest small amounts all by yourself.
This is a new type of investment model, for the people where the crowd can decide for themselves. But investors do need to pay attention to the Business Plan and read the White Paper that should explain the business problem they are trying to solve and how their token works.
Seems Naughty Boy has a point here.

BLOCKCHAIN ORACLES EXPLAINED

1. What are blockchain oracles?
2. How important are oracles?
3. Why can't decentralised a pplications communicate with the real world without oracles?
4. What recent developments have taken place?
5. Which companies are at the forefront of current oracle development?
6. Which trends should we expect in the future?

What are blockchain oracles? 1

Blockchain oracles sound like something from ancient Greek mythology, and in a way, they function in a similar role. In ancient stories, people didn't have enough information to make decisions and turned to oracles for information beyond their understanding.

In the same way, blockchains like those of Bitcoin and Ethereum, do not have ready access to information outside of the chain, and so there is no direct way to validate the conditions that smart contracts are based on. An oracle is, simply put, a translator for information provided by an outside platform.

Oracles provide the necessary data to trigger smart contracts to execute when the original terms of the contract are met. These conditions could be anything associated with the smart contract - temperature, payment completion, price changes, etc. These oracles are the only way for smart contracts to interact with data outside of the blockchain environment.

How important are oracles? 2

Oracles are radically important. Just like the ancient stories could never have occurred without proper external information, smart contracts cannot function without some data source. Without access to these sources of information, use cases for smart contracts drop to just a tiny fraction of their potential.

However, with these systems, smart contracts have real world applications in virtually every field available. Once data hits the blockchain, the information can be used to execute the contracts and provide use cases, which can disrupt industries across the board.

Why can't decentralised applications communicate with the real world without oracles? 3

There is a fundamental difference of formats. blockchain is deterministic, meaning that is a reflection of a specific series of events which take place one after another in sequential order - series of transactions. Accessing information outside of the chain would require data points that are not sequential, and would therefore be impossible for blockchain to use or make sense of. This aspect of blockchain gives it immutability, but reduces flexibility.

The off-chain world, however, is non-deterministic, meaning that there is no recording of the events in the specific sequence that they have taken place, which creates problems with transparency. Data points can be generated from and understood at any point, providing increased flexibility, but difficulty in communicating with the blockchain.

This foundational distinction makes the two worlds incompatible with each other by default, and only the presence of an oracle can make two-way communication between them possible.

What recent developments have taken place? 4

Blockchain developers at the cutting edge of new blockchain technology are making constant progress regarding ways to make blockchain better integrated with the outside world. Because oracles are, themselves, smart contracts, designed to interact with the blockchain by providing necessary data, they require developers with expertise in both off-chain and decentralized fields.

The recent and profound need for external data on blockchain has given rise to new and interesting developments in the space. For example, oracles would allow blockchain connection to any existing API, allow payments using traditional payment networks from blockchain, and would allow interchain connections between smart contracts and other blockchains.

Which companies are at the forefront of current oracle development? 5

The marketplace for these highly specialized middleware software models is growing rapidly, and, as new ways to utilize blockchain technology are being conceived of every day, the demand will only increase.

Currently, the marketplace for these types of contracts has continued to expand, and is being led by several companies that are active in developing oracles. Oraclize has been an industry leader in oracle technology. Other startups like ChainLink and Blocksense are also seeking to take market share in this area. Finally, large scale corporations (IBM and Microsoft) are seeing the potential for huge market presence and are developing these platforms now.

Which trends should we expect in the future? 6

As the increasing number of use cases for smart contracts continues to rise, the need for new oracle structures will also rise as the structural framework that makes smart contracts possible. This will drive increasing investment and design into the market space, and new innovations will make blockchain-to-web communication more simple and elegant.

One of the more likely future trends is the development of a unified, integrated platform for communication between blockchain and the outside world. Standardized tools and interfaces make it easier for both the developers and the users of blockchain-enabled services. That means that we're likely to see fierce competition between multiple providers, until one, or several of them achieve widespread recognition.

CONVENTIONAL & DECENTRALIZED HEDGE FUNDS EXPLAINED

1. First things first - what is a hedge fund anyway?
2. Are all hedge funds the same?
3. Is there more than one process for decision-making?
4. How does decentralized decision-making work?
5. Decentralized decision-making looks so simple. Is it really that simple?
6. What are some of the economics that must go into decentralized decision-making?

First things first - what is a hedge fund anyway? 1

It's an investment vehicle.

Setting aside the legal part, you can think of a hedge fund as a pool of assets in various proportions, managed by people known as fund managers. A typical hedge fund in the stock market manages various securities for several companies to create an overall pool.

Because the pool is diverse, meaning no one asset dominates, the risk goes down. In other words, the risk is hedged, and therefore, the name.

Are all hedge funds the same? 2

Mostly, all successful hedge funds are built on a unique insight that fund managers have about the market.

It allows them to leverage a certain market opportunity that no one else did previously. Building on this market opportunity, a hedge fund can attract investors to put their hard earned money into the hands of fund managers.

What separates two hedge funds from each other is the unique insight each of them is playing with, and the process of decision-making within a fund.

Is there more than one process for decision-making? 3

Yes, two. Conventional and Decentralized.

The standard strategy for making decisions in a hedge fund is that of hiring smart people, putting them in a room, and asking them to make bets in markets.

Every individual makes their own bets in the market, and depending on the decision, the value of the fund will either go up or down. The variable incentives for these decision makers (or fund managers) are in proportion with the returns they yield for the fund.

A manager who consistently makes good decisions, makes more money than one who regularly makes bad bets. That's the traditional way to reach to a decision in a hedge fund. On average, a hedge fund employs 200-250 fund managers to take care of the fund and the investors' money.

Such a fund is as good as the 200 people hired by the fund. Smart folks among us started asking, "Are 200 people enough? Can we leverage the smarts of people at scale?" The answer led to the decentralized form of decision-making.

How decentralized decision-making works? 4

The winds of decentralization have not left the management of hedge funds untouched.

Blockchain has taught us that if there can be a protocol or method to organize a large number of strangers together, with proper incentives that promote the right kind of behavior in the network, an organization doesn't have to be limited to the few people that it can afford to employ.

Decentralized decision-making in a hedge fund is an excellent example of designing such a protocol. In a nutshell, it looks like this:

The process starts with hundreds, or even thousands of people casting their bets/votes, based on their own research about the market. Each of those individual bets is then carried out on the live market by the hedge fund for a particular period. Once the period has elapsed, the bets are evaluated on the returns they have made. The participants are then rewarded proportionally to the returns their bets yielded.

Decentralized decision-making looks so simple. Is it really that simple? 5

The basic economics is really that simple.

However, the devil lies in the details. Like all traditional hedge funds operating on a unique insight, the decentralized protocols must also run on a unique market opportunity that's hard to repeat by someone else.

There are interesting examples out there, like Numerai, with a protocol for organizing data scientists, or God Token, using its decentralized protocol to organize thousands of miners.

Even though in the real world decentralized protocols might not be this simple, for our purposes, this is how a decentralized hedge fund works.

Besides the technology, economics drives every step in such a protocol.

EXPLAINED

What are some of the economics that must go into decentralized decision-making?

6

We can break down the involved economics in three parts.

NETWORK EFFECTS

The sole aim to open up any decision-making to the entire world is to attract a large number of people to work on it. The network effects, which means the system will become better as more people join in, must be made part of the whole economic model.

The economics must not be designed in a manner such that participants start to view each other as competitors. If that happens, they will try to make it difficult for new entrants to come in and work towards forcing out the existing ones. No one would desire such a situation - neither the fund nor the investors.

Ideal economics would be such that current participants invite more participants in the network. If not perfect, an economics that does not make a member compete against the others would work too.

PARTICIPATION

Talking of networks, no two members in a network are equal. Each member contributes differently, and that's how they should be treated.

One of the popular ideas is to maintain the reputation of each participant in the network, and have their votes (bets) evaluated in the light of their reputation. A member with higher reputation will gain more weight for his/her bet as compared to one with a lower reputation. One with zero reputation (or a minimum threshold) is as good as nothing.

Another popular idea is to allow each participant to bet some of their stakes (earnings) along with their bets. The size of their stakes will directly reflect how confident they are in their bets. If a bet yield returns a positive outcome, the one who placed it will be rewarded. If negative, the amount he/she bet would be destroyed.

Bets with higher stakes might be given more weight because that would mean that the participant didn't just randomly guess.

REWARDS

Just as no two members are equal, no two rewards are equal. Rewards might be a function of the reputation of a participant, the stakes he/she made a bet with or the return that his/her bets yielded.

COMMODITIES EXPLAINED

1. What are commodities?
2. What features do they have?
3. How are commodities connected with money?
4. Are cryptocurrencies a commodity?
5. Are you saying commodities a bad way to invest?

What are commodities? 1

Commodity is a good or service that is sold in exchanges.

A commodity has a full or partial substantial fungibility. In other words, any good or service can be interchanged with other same good or service. The units are the same with no regard who produced them. Of course, the quality may differ a bit, but it is almost uniform for all manufacturers. The most representative examples of commodities are precious metals such as gold, silver, and platinum; raw materials such as oil, gas, and coil; food products such as coffee beans, wheat, potato, sugar, and cattle. Often commodities are inputs for the production of other goods.

What features do they have? 2

The main characteristic is pricing.

This market is totally dependent on supply and demand. Commodities have no producers on the market, all the companies looks the same and do not differ significantly. So, the price is set based on demand and market opportunities. This fact attracts a large number of speculators.

Another feature is standardization. Every commodity must have something that is common for every unit, i.e., weight, density, size and so on. That's why some products, for example, diamonds are not commodities. The diamonds are unique, they have cut, density, size and color that are different for each gem.

These features are used in money mechanism.

How are commodities connected with money? 3

In fact, commodities were a mean of payment.

In the past, before market relationships were established in the society, cattle, furs, pearls had been used to pay for goods and services in barter. A bit later, precious metals, in particular silver and gold, replaced other commodities. For a long time money were "obligations" that confirm the ownership of some amount of gold. But it changed in 1971, after Nixon's laws known as the "Nixon's shock." Nowadays, none of the fiat currencies are backed with the gold. It should be noted that almost none currency can fulfill its obligations since the emission of money is much larger than the international reserves. But gold helps countries to keep their economics and money afloat.

Are cryptocurrencies a commodity? 4

Let's see.

Most fiat currencies, most cryptocurrencies do not have any backing. Actually, the majority of cryptocurrencies are not tied to any commodity. They have a price only if people believe they have a value. From the very start, cryptocurrencies used a system for fiat money as a basis and changed it a bit considering decentralization and pseudonymity. The value depends on the community that uses a cryptocurrency. If the number of users is quite big, goods can be sold in this currency and it is secure enough and stable, the cryptocurrency will have value even if there's no equivalent to it in the real world.

Are you saying that commodities a bad investment? 5

No, we're not saying that.

Though commodities have lost their dominant positions in a financial system, they are still a great financial instrument. They are the products that people and industry need all the time. We cannot abandon these things or replace with some others. So, we will use them again and again, and demand will not reduce much. In addition, commodities do not suffer as much as other instruments from the global financial shocks.

Today cryptocurrencies obtain more and more prosecutions that they are just a bubble. More and more ICOs return to the backing for their tokens. Gold is again of particular importance. It is common for average citizens, amount of gold is limited but not too little. Everything new is actually well-forgotten old. Companies such as GoldMint suggest coming back at the origins when money really has a value.

INVESTING IN CRYPTOCURRENCIES EXPLAINED

1. Should I invest in cryptocurrencies?
2. What are the risks?
3. What cryptocurrency should I invest in?
4. How to start investing in crypto assets?

Should I invest in cryptocurrencies? 1

Cryptocurrencies are now considered to be one of the best investment decisions.

These are some of the reasons:

1 To increase net worth. The alarming value loss of most currencies makes many people consider a better way to hedge their money. As a result, they turn to cryptocurrencies as a better alternative.

2 Technology. The technology behind cryptocurrencies is amazing. It offers you a currency that can be used regardless of where you live in the world, unless a government decided to take a hand on it, of course

3 Track record. Ever since Bitcoin, the first cryptocurrency ever created, was launched back in 2008, investors in the digital currencies have benefited immensely from the surge in prices of the currency over time. Therefore, investing in crypto assets offers you the chance to increase your financial situation over time.

What are the risks? 2

Some of the issues you might want to consider before investing:

1 Bubble accusations. Some business experts believe that cryptocurrency is a bubble and will never pass the test of time. JP Morgan CEO Jamie Dimon is one of them, for instance. Traditional financial investors seem to think that since digital currencies are not backed by anything and have a high level of volatility, they cannot compete with fiat money and thus will never replace it.

2 Volatility. This point is of a high concern. With big volatility jumps you may earn a lot of money but you can also lose a lot in an instant. Take a look at the Bitcoin price over the last three months as an example.

3 Legal aspects. Not all the countries in the world have officially recognised the digital currency as a currency yet. So you may find it impossible to open a cryptocurrency wallet in some countries or to pay in digital currencies at a groceries store. Also, if you some of your income is in cryptocurrency you may face difficulties declaring taxes, as most of the governments have figured out what to do about it yet.

What cryptocurrency should I invest in? 3

Tricky question.

There are a lot of factors to consider before investing. Let's take a look at the most crucial ones.

1 Acceptability. Before you invest in a crypto asset, consider how many countries recognize and accept it as a legal means of exchange?

2 Portability. A digital coin must be portable. You should be able to carry it easily from one place to another without much challenge.

3 Security. It must also be secure. This is a characteristic of all legal currencies. From the US Dollar to the British pound, security is a common quality. So, a good digital currency must also be secure.

Over the years, a lot of digital currencies have been launched with each promising to be the most valuable. Let's take a look at the ones we cover most often:

- ***Bitcoin.*** Bitcoin has proven to be the most valuable cryptocurrency to invest in. It offers high Return on Investment (ROI). Nevertheless, as mentioned before, it is not immune to volatility jumps.
- ***Ethereum.*** Ethereum is the second largest digital currency by the market capitalization and by the current price.
- ***Litecoin.*** Litecoin has been one of the most stable crypto currencies so far. In fact, it is often called "the main hedge asset of the crypto market" among crypto traders, although it was affected by the news of the China ICO ban.

There a lot of other potentially interesting cryptocoins to invest to. Do your own due diligence before deciding.

How to start investing in crypto assets? 4

Take the following steps:

1 Decide what you want to invest in. The first step to take is to decide what cryptocurrencies to invest in. Since there are more than thousand of them, making a decision on which one to buy is crucial.

2 Set aside some money for investment. Everything requires planning and goal setting. So, the second step to take is to decide how much you would like to invest in crypto assets either weekly or monthly. Keep aside the amount you wish to invest and watch out for the right time to invest it.

3 Sign up for a cryptocurrency wallet. You'll need a wallet address with which to request and receive the coins you will buy. There are different types of wallets such as Bitcoin wallet, Ethereum wallet, etc.

4 Join an exchange. Now that you have signed up for a cryptocurrency wallet, you still have to join an exchange because this is where you will be trading. There are a lot of exchanges, like HitBTC, Bitfinex, Bittrex, Coinbase, BitstamP, etc.

5 Purchase your cryptocoins. After creating an account at an exchange, it's time to start buying. If you have no idea how to do this, get in touch with the support team and they will be glad to guide you.

6 Move your coins to offline hardware storage. An offline hardware storage will help you store the coins off the internet servers where they are protected from hacking.

Please note that investing in crypto assets is risky. You should conduct your own research when making a decision.

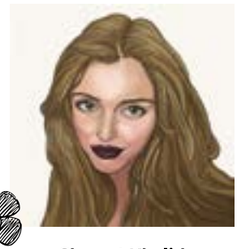
**The views and opinions expressed here are solely those of authors/contributors and do not necessarily reflect the views of Cointelegraph.com. Every investment and trading move involves risk, you should conduct your own research when making a decision.*

BLOCKSHOW ASIA 2017

YEARBOOK

Addy Crezee
Chief Executive Officer

Anna Sergius
Chief Product & Operations Officer



Shavrat Khalid
Chief Event Manager

Katrin Demi
Head of Sales

Aleksander Raserei
Manager of Everything

Julia Daimio
Partner Relations

Li XiangJun
Head Manager for Greater China Region

Victoria Newman
Account Manager

Nick Sodje
Developer

Alex Kotezky
Designer

Max Sofaz
Support Manager

Vlad Stoiny
Sales Manager

Article authors: Stacy Dunaiskaya, Andrew Marshall, Andrew Tar, Anthony Coggine, David Dinkins, Darryn Pollock, Jacob J, Jon Buck, Kari Stray, Mohit Mamoria, Nick Ayton, Vincent Launay, Vlad Smerkis

The Cointelegraph Special Edition was published under The Cointelegraph franchise. Learn more: **cointelegraph.com/franchise**

BLOCK SHOW

POWERED BY

THE COINTELEGRAPH

The Cointelegraph
BlockShow edition
November 14, 2017
Not for sale