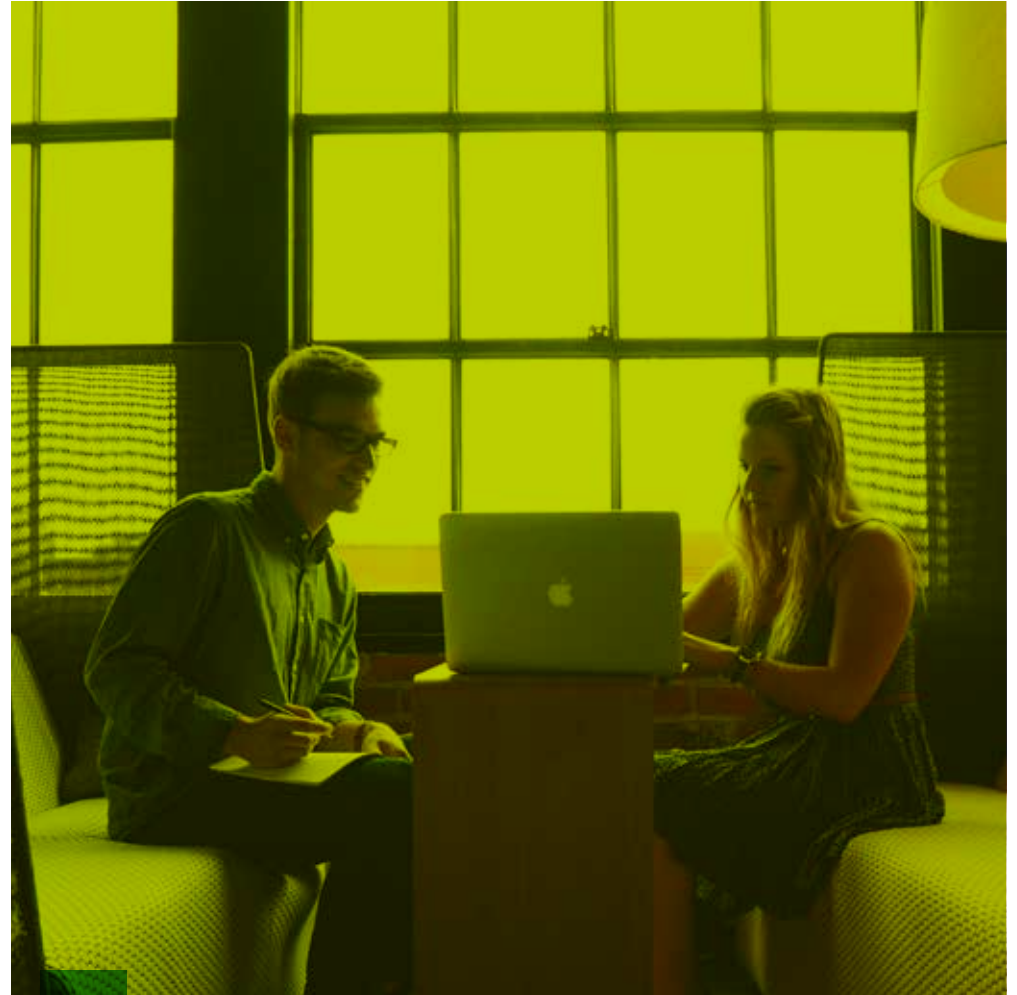


Culture and Communications In A Blockchain World

By Nicholine Hayward, Planning Director



Blockchain is 2016's major new buzzword. But what exactly is it, and why should we all care?

At its simplest, blockchain is a decentralised public ledger, run across a network of servers, that users can access and amend. So far, so Google Docs. The exciting bit comes when you realise what you could do with this kind of information infrastructure when you start to think big.

By creating multiple, secure but accessible copies of the same data, blockchain essentially eliminates the possibility for fraud, subterfuge or downright lying in environments where trust may traditionally be more than a little opaque.

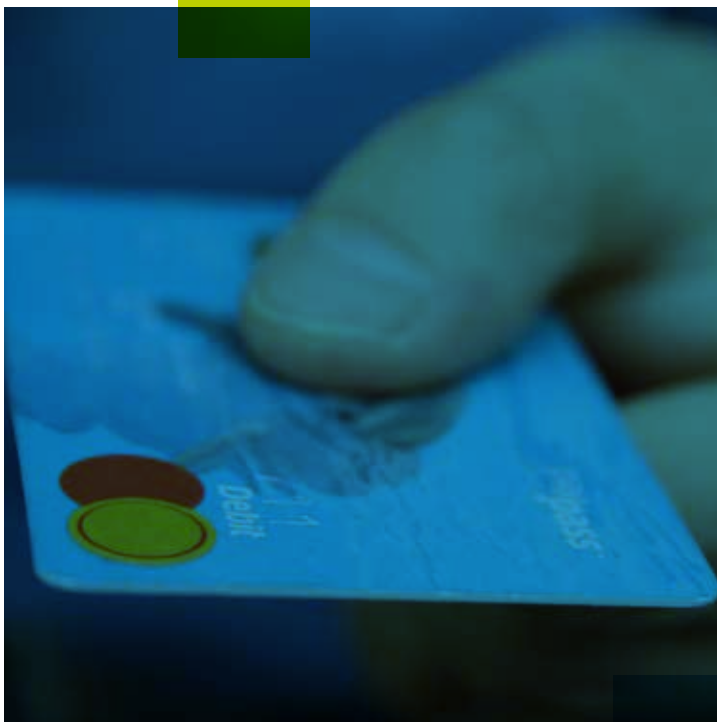
From providing the software behind the cryptocurrency Bitcoin to revolutionising access to and regulation of government-held data, blockchain has the potential to usher in a new era of transparency and interconnectivity on a global scale.

In fact, in Estonia it's already being used to power everything from health record management and government oversight to online notarisation and the digitisation of the nation's cultural institutions.

To help you get to grips with just how exciting blockchain is, we've written a new whitepaper: [Culture and Communications In A Blockchain World](#).

Take a look now to find out what blockchain could mean for all of us, across banking, e-government, and society in general over the next few years





EXECUTIVE SUMMARY

In this paper, we explore the increasingly popular topic of blockchain, how it works and what it can be used for, although we don't dwell on the technicalities because there is plenty of information about that elsewhere. We have looked at how it promises to transform the relationships between brands and consumers, and governments and citizens, and how, as a communications agency specialising in financial and professional services, our role and our remit to clients might change in this new landscape.

From its inception as the technology behind the world's first true cryptocurrency, Bitcoin, blockchain is going mainstream. The big brands are embracing it in principle. The regulators are trying to keep up without, refreshingly, destroying its spirit. Governments are hoping it will lead to a whole new era of civic engagement but at the risk of further disenfranchising whole swathes of the population. Meanwhile a new generation of start-ups stand on the cusp of pioneering a unique sharing economy but still need the reach and resources of the big brands.

As the Chinese curse goes, we live in interesting times. Just how interesting those times are going to be is debated in this paper.

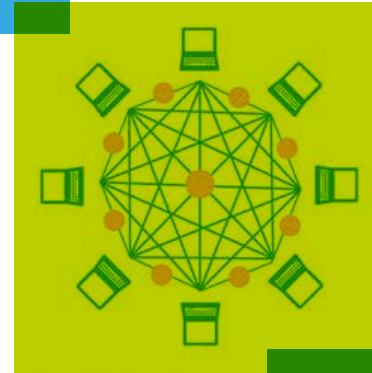
WELCOME TO BLOCKCHAIN

The concept of blockchain was first postulated in 2008 by the mysterious Satoshi Nakamoto (not his real name, although there is plenty of speculation as to his true identity) as the open-source software behind the cryptocurrency Bitcoin. It was designed to make transactions quick, cheap, easy and, most importantly, trustworthy between people who didn't know or trust each other on the dark side of the Web.

Like a crowd-sourced book-keeping ledger, the blockchain is a decentralised digital platform that records ownership and transactions, who has paid who (although identities are anonymised as 'keys'), how much and when. It uses duplicated ledgers across a variety of servers, meaning if one is compromised the data is still intact.

When the parties involved sign-off a transaction, details of it are sent to every computer (or 'node') in the Bitcoin network, where it is simultaneously and independently verified by applying an algorithm known as a 'puzzle'. This is the equivalent of having a group of independent witnesses to a single event. Nodes that perform this authentication function are known as miners and are rewarded with Bitcoins, as an incentive to keep the blockchain going and the system operational.

When the transaction is verified, the data is coded using complex cryptography which means it cannot be changed or erased once it's added to the blockchain. Over time, as the blockchain grows, and as more nodes join the network, so does the assumed strength and security of the system.



- Conceptualised in 2008
- Open-source software of Bitcoin
- Decentralised ledger of ownership and transactions
- Independent 'miners' authenticate transactions
- New transactions take their place in the block
- Data cannot be changed or erased

"In a public blockchain, you're trying to get everyone all over the world to agree to changes at the same time. In a private one, you're not. You're really just saying you trust everybody that's on that network because you've all agreed to join it. You don't have these same computational issues that you do when it's public."

Chad Cascarilla
CEO of itBit



Whilst 'the' blockchain is all about bitcoin, the processes and principles of it are being adopted by a wide range of organisations and institutions, from financial services, health and transport, to manufacturing, computing, legal and professional services, and retail.

They are looking to private blockchains, also known as sidechains, to which a limited number of people have access but which work on the same principles and deliver similar benefits. According to Chad Cascarilla, CEO of New York-based blockchain and Bitcoin company itBit: "In a public blockchain, you're trying to get everyone all over the world to agree to changes at the same time. In a private one, you're not. You're really just saying you trust everybody that's on that network because you've all agreed to join it. You don't have these same computational issues that you do when it's public."

Every business which relies on probity, privacy and security for its reputation and its regulatory compliance will have a blockchain project in the pipeline – or at least be taking it seriously at the highest levels of the organisation. That includes every multinational bank, the consultancies and the global investment community, which in 2015 invested a record \$13.8 billion in fintech, of which \$474 million was in blockchain and Bitcoin start-ups, according to a joint report by KPMG and CB Insights

What is particularly interesting is the speed at which the banks have come together to agree that blockchain is the way forward, and are collaborating around standards and best practice.

WHY BLOCKCHAIN IS SO EXCITING

The reason why blockchain has created such huge interest is because it offers the promise of addressing some of the key challenges and pain points experienced by organisations who rely on their record-keeping to be trusted by their stakeholders, or who use trusted third-party authorities as the arbiters of transactions. Blockchain is often referred to as a 'trustless' technology, because the concept of emotional security has been replaced by mathematical certainty.

A blockchain-based ledger makes it much more difficult to tamper with transactions or records, meaning it can reduce fraud or identity theft and enable regulatory compliance. It can help to reduce reliance on third parties acting as middle-men, meaning it can speed up transactions and reduce processing costs. It delivers greater transparency because all parties to the blockchain have shared access to the data on it, so it can prove the provenance or authenticity of a product, or an item in a supply chain and provide a traceable record of ownership.

The benefits of blockchain

- Reduced fraud and theft
- Less reliance on third-parties
- Faster transactions
- Reduced processing costs
- Greater transparency
- Increased trust
- Fewer disputes



Applications for blockchain

- Smart contracts
- Social networking
- Payments, settlement and clearing
- Anti-counterfeiting and brand authenticity
- Governance
- Digital identity
- Supply chain
- Asset ownership
- Digital assets
- Prediction markets
- Cloud storage
- Internet of things

Analysts have identified the applications for blockchain with the greatest disruptive potential as:

Smart contracts

Smart contracts are computer programs that can automatically execute the terms of a contract, to provide an immutable record of transactions and interactions between the parties to the contract. An example of this is insurance. With a smart contract, the trigger that there has been an accident would come from the policy holder's smartphone app, or the connected car itself via the Internet, to the blockchain. This not only reduces the potential for fraud, but ensures that claims can be processed faster and more efficiently, both of which will help to reduce the cost of premiums and create better relationships between insurers and their customers.

Social networking

Currently social networks are centralised and users simply have to accept that their data can be harvested and monetized. However, in the future, a new generation of social networks will use blockchain technology to create decentralised networks, in which users can communicate with each other without the need for a central authority and without needing to submit their personal data as part of paying the price of participation.

Payments, settlement and clearing

The payment systems currently used in most of the financial world are based on technology that is over 40 years old, called Automated Clearing House. ACH technology batches transactions together and sends them to be cleared at set intervals. This is why bank transactions can take 5 working days.

But by integrating blockchain technology, transactions can be cleared instantly, cheaply and more securely, because interactions can be verified through a decentralised system, rather than needing to be channelled through clearing houses.

Using a blockchain format, banks can also receive payments or make loans to another bank with the assurance that the counterparty is not sitting on a mountain of toxic debt.

According to a report from Santander InnoVentures, a bank could reduce its infrastructure costs by an estimated \$20 billion a year by the year 2022, by implementing blockchain technology.





Anti-counterfeiting and brand authenticity

10% of all pharmaceuticals in the global supply chain are estimated to be counterfeit, and over 70% in parts of the developing world. Less seriously for consumers, but of grave concern to luxury brands, the total value of fake watches, handbags, perfume and jewellery is believed to be over \$1 trillion each year. Blockchain technology can be used to give products a unique ID, enabling the provenance of the product to be traced from its original ingredients or materials, and through the manufacturing and distribution process.

Governance


When it comes to corporate governance, such as adding and removing board members, allocating and managing budgets, voting and decision-making, equity allocation, arbitration, accounting and asset management, blockchain can be used to create distributed ledgers that enable clarity, transparency and probity.

Digital Identity

The European Central Bank estimates that 66% of credit card fraud results from card-not-present payments. This is a form of identity theft, and blockchain technology can be used to give credit card companies a global view of a cardholder's transactions in real-time, therefore making it much more difficult for the holder of a stolen or forged credit card to make a fraudulent purchase. Banks are also looking into ways that the blockchain can be used to enable their customers to open accounts more easily without having to verify their identity in person.

Supply chain

As a shared, secure record of exchange, capable of tracking what went into a product and who handled it along the way, blockchains offer a way to integrate siloed supply chain data into a seamless, end-to-end, transparent ledger. The provenance from originator, to end user, can be viewed.





Asset ownership

When one party sells something to another party, the buyer in particular needs to be sure that the seller holds legal title and the asset does actually exist, and is neither stolen or fake. In the past, trusted third-parties have traditionally played this role, but blockchain can serve as the infrastructure for registering and authenticating asset ownership between parties.

A good example of this is in land deeds. In the developing world in particular, where record-keeping can be erratic and is often exacerbated by corruption, it has been impossible to resolve ownership disputes. Similarly, blockchain can be used to replace the patent system, as an individual or organisation could prove that it created a technology by registering it to the blockchain, where its date of registration and other information could be independently verified.

Another example is in the buying and selling of goods, particularly luxury items. In a marketplace awash with stolen and grey market goods, a blockchain-based certificate of ownership can be used to prove that the seller is the rightful owner or distributor.

Digital Assets

Digital assets, things that have a virtual rather than physical value, include shares and financial securities, local community money, coupons, subscriptions and memberships. Given that blockchain technology is by definition a form of tokenisation, and in a world in which peer-to-peer commerce is becoming increasingly the norm and people and devices are interconnected through the Internet of Things, it is the ideal platform for exchanging and proving ownership of digital assets securely and efficiently.



Prediction markets

Prediction markets are not new. In fact, they were first used to predict the outcome of US presidential elections in the 1800s. Currently, prediction markets are a form of digital gambling that allow their users to buy and sell shares in the outcome of an event, tapping into the aggregated knowledge of the participants, to decide the probability of the event occurring. It's basically a version of 'Ask the audience'.

In a blockchain world, prediction markets could be used for a greater social good, to create public ledgers to allow people in finance, healthcare and governance to tap into the collective wisdom of their user base. For example, it could be used by doctors to more accurately diagnose patients. Similarly, Blockchain could be used to gather information from a wide community, such as pollution and climate data, or the incidence of certain diseases, that could be analysed to provide more accurate modelling and forecasts.

Cloud storage

At the moment, cloud storage services are centralised and users have no choice but to place their trust in their storage provider. With the blockchain, storage can become decentralised with people who have excess hard drive space contributing their capacity to the network, not only improving security and privacy but reducing costs. Users could rent out their excess storage capacity, Airbnb-style.

Internet of Things

In a world of connected devices, in which information is exchanged between people, appliances and infrastructure, blockchain provides a common platform for this wealth of data exchange, enabling smart devices to become independent agents, whilst each making their contribution to the whole.

For example, vending machines could not only monitor and report their own stock but could solicit bids and pay for the delivery of new items, whilst running a smart contract between the machine's owner and the lessee. Similarly, a suite of smart home appliances could bid with each other for priority and mutually agree their rota of domestic chores in a way that minimises energy usage, and vehicles could diagnose, schedule and pay for their own maintenance.



BLOCKCHAIN IN THE PUBLIC SECTOR



Blockchain can help governments to collect taxes, deliver benefits, issue passports, record land registries, assure the supply chain of goods and the integrity of government records and services, support electronic voting, and cloud-based education. It can help to streamline and speed up the provision of public services, reduce tax evasion and corruption and deliver greater transparency in the allocation and use of public funds. Other suggested public sector uses for blockchain include protecting critical infrastructure against cyberattacks, offering greater financial inclusion and providing transparency and traceability for how aid money is spent.

One area that the **British government** is taking a particular interest in is RegTech, the use of technology to help ensure the quality, and reduce the cost, of regulatory compliance, and which is driving the launch of myriad new products and services in the FinTech industry. What is interesting about blockchain is that it provides a point of intersection between legal and technical code. Currently, regulatory compliance is enforced legally, rather than technically, making it time-consuming and expensive for all parties concerned.



UK **research councils**, particularly the Engineering and Physical Sciences Research Council (EPSRC), the Economic and Social Research Council (ESRC) and the Alan Turing Institute, are also playing an important role in driving the adoption of blockchain. At the same time, the government is partnering with the private sector on initiatives including the Digital Catapult, Future Cities Catapult, the Open Data Institute and the Whitechapel Think Tank. The UK Government Office for Science has made RegTech one of the key recommendations in its recent FinTech report.



REPUBLIC OF ESTONIA
GOVERNMENT OFFICE

guardtime 

The **Estonian government** secures much of its banking and civic infrastructure with blockchain. It uses a form of distributed ledger technology known as Keyless Signature Infrastructure (KSI), developed by an Estonian company, Guardtime. KSI allows citizens to verify the integrity of their records on government databases, and at the same time reduces the opportunity for corruption or inappropriate behaviour inside the public sector. Estonia has one of the lowest rates of credit card fraud in Europe and its citizens joke that the only thing you can't do digitally in the country is get married or divorced. Estonia is one of the 'Digital 5' or D5 group of nations, which includes UK, Israel, New Zealand and South Korea.

Guardtime has now signed a deal with the Estonian government to secure all the country's 1 million health records with its technology.

Also in Estonia, the NASDAQ stock market has announced it is developing an electronic shareholder voter system based on blockchain technology. This would allow shareholders of companies listed on the OMX Tallinn Stock Exchange, Estonia's regulated securities market, to take part in acts of governance, using the country's blockchain-enabled e-Residency platform. Currently, only 1% of shareholders do so.

BLOCKCHAIN IN FINANCIAL SERVICES

New use cases for blockchain are appearing all the time, particularly in the financial sector. For example, 42 banks have joined together to form **R3**, a global consortium engaged in blockchain research and development. Its members have currently tested out projects around the issuing, trading and redeeming fixed income products on 5 blockchains.

Bank of Ireland



Separately, the **Bank of Ireland** has worked with Deloitte to complete a joint proof-of-concept trial to create an immutable, distributed, searchable repository of information across the full trade cycle. It combines data from multiple systems across Bank of Ireland's Global Markets division and associated functions and gives clients, relationship managers and regulators a browser-based view of the trade position, and carries out auditing, in near real time.



BNP PARIBAS

BNP Paribas has gone one step further, announcing plans to run a pilot scheme in partnership with crowdfunding company SmartAngels to develop a blockchain-based share register. It will allow private companies to issue securities on the primary market and allow investors to trade their shares directly on the SmartAngels platform. Investor payments can be processed and e-certificates issued immediately. At present, only a few thousand companies are listed on the financial markets in Europe. The integration of blockchain into crowdfunding platforms will give hundreds of thousands of startups and SMEs instant access to low cost financing from individual and professional investors.



Bitpesa, the remittance company uses Bitcoin converted into local mobile money services owned by networks such as Airtel Money, M-Pesa and MTN Money.

Consultancies are similarly embracing the technologically – both intellectually and practically. Early in 2016, PwC revealed its plans to build a 40-strong team of blockchain professionals by the end of the year to deal with increasing demand from banks for specialist expertise. Meanwhile, over at Deloitte, their specialist blockchain lab provides a resource to the wider Deloitte network, whilst Accenture has launched a specialized practice within its financial services group and formed an alliance with Digital Asset Holdings, a developer of blockchain technology, to help institutions assess and implement blockchain related solutions. Accenture are also part of this alliance. KPMG are similarly establishing themselves as thought leaders, hosting the 3rd international Blockchain Conference at their HQ in the Netherlands.



CapGemini, as systems integrators, has a slightly different model to the other consultancies as it will be collaborating with fintechs to develop solutions for micro payments, syndicate loans, asset management and claims handling which CapGemini will implement. It plans to recruit a team of 100 blockchain professionals within its financial services business unit by the end of 2016.

OUTSIDE OF FINANCIAL SERVICES...



Everledger provides a distributed ledger that assures the identity of diamonds, from being mined and cut to being sold and insured. In a market with a relatively high level of paper forgery, it makes attribution more efficient, and has the potential to reduce fraud and prevent conflict diamonds from entering the market.

UK company **Provenance** is developing a way to use blockchain-enabled smart contracts to create real-time, transparent records of a product's journey from raw material to consumer that consumers can see by holding their smartphone over a label. One project in the pipeline is in guaranteeing the origin of fine wines, which is good for the vineyard because it can track production and promise a level of quality to customers, and good for the customer, because they can be sure of the wine's provenance right back to the grapes themselves.



Storj is beta-testing cloud storage using a blockchain-powered network to improve security and decrease dependency. Additionally users can rent out their excess storage capacity, Airbnb-style, creating new marketplaces. Its founder estimates that users could store the traditional cloud 300 times over.



Transactive Grid is the first version of a new kind of energy market, operated by consumers, in which people can buy and sell renewable energy to their neighbours. It is using blockchain to enable users to set up and enforce contracts between each other with no need to go through a central body such as the National Grid or a utility company.



OpenLedger and CCEDK are working together with MUSE, a music-based blockchain, to monetize music in a simple way. **MUSE** users can tie a specific song to smart contracts which allows the funds generated by that song to be automatically split up based on the instructions contained within. In other words, a user can tell the blockchain what to do with funds coming from different sources (countries, streaming, retail, etc.) and have them sent to the correct rights holders or collection agencies



Uproov is a new service that specializes in timestamping photos and video which can potentially be used for officialising a marriage, signing a lease, or documenting the condition of a rental car or home at the time of check-in.



Onename is another blockchain-based ID application, but with a social dimension. A user signs up and receives a unique, time-stamped blockchain ID which is verified by other participants in the network. This ID can be linked to the user's social media profiles and shared business contact details, and can be used to sign into apps and social accounts without the need for a password or to digitally sign documents.

Block Notary have recently launched an app which allows users to timestamp photographs taken with their iPhone in order to allow remote customer ID verifications. This service will allow any bank or vendor to safely accept new customers without them coming into an office, by video recording them speaking a script and showing their state-issued ID, then timestamping that video on the blockchain.



The first pilot of UK-based **Bitnation**, which debuted its blockchain ID last year and has been working on a private passport product, uses a smart contract on a distributed ledger to build a fixed-term marriage document. If one party transgresses from the agreed terms of the marriage, it is automatically annulled.



THE PROBLEM WITH BLOCKCHAIN

Whilst blockchain is a solution, we don't yet fully understand the problems it can solve. The big institutions are asking themselves what they can use blockchain for, rather than looking into their businesses to find the operational or regulatory problems first and the blockchain solution second. As a result, the retail banks are mainly adopting blockchain for their back-office functions such as clearing, settlement and Know Your Customer (KYC), leaving

the fintechs to find a role for customer-facing blockchain applications, such as payments and smart contracts.

Where this leaves the relationship between the established banks and the fintech companies is an interesting one. Many blockchain start-ups, and there are an estimated 1000 + worldwide (an increase of 100% in the last 6 months alone), are starting to partner

with the big banks, but have soon found that they are acting as consultants and once their intellectual capital and value has been extracted are at risk of being redundant. And whilst the big banks might then have access to the technology, blockchain is an attitude as much as an ability. Add to that the whispers that the big banks are snapping up the smartest blockchain fintechs just to stop their competitors from having access, which rather negates the whole point.

A breach of security has the potential to infect the entire network

In practical terms, a growing blockchain requires exponential computing power and energy to service, and a breach of security has the potential to infect the entire network making the concept of crowd-sourced authentication redundant. Just as they did when the last dot com bubble burst, people are starting to take off their blockchain goggles and are asking tough commercial questions.

- How does the dynamic between privacy and transparency work when nobody is in charge?
- Do smart contracts and supply chains simply create an opportunity for even smarter criminals with insider access?
- Are private blockchains, restricted to permissioned users only, just another cartel and potentially corruptible?

For a blockchain-enabled civic infrastructure to deliver on its promise, people have to be connected to it in the first place, which raises the issue of the digital divide working to keep public services even further beyond the reach of the people who need them most.



THE REGULATION ISSUE

The UK Financial Conduct Authority (FCA) has no immediate plans to regulate the blockchain industry, believing the technology needs space to grow. In fact, regulators are remarkably sanguine, believing that it's in the interests of innovation for them to not interfere too much at this stage. They're monitoring the developments with interest, particularly on issues such as anti-money laundering but won't be using a heavy hand any time soon.

The FCA has developed a special initiative called the Innovation Hub as a way of keeping an eye on the situation and ensuring that their concerns about privacy, transparency and issues such as Know Your Customer are being 'baked in' at the early stages of project developments in a co-ordinated way.

Plans are also afoot to give the Innovation Hub a more international reach. In the past year, over 25 overseas innovators have approached the Hub either for support or to learn more, and the aim is to have cooperation agreements in place with key regulators to reduce some of the barriers to UK authorised firms looking to grow scale overseas and to assist non-UK innovators interested in entering the UK market.

A number of overseas regulators are engaged in similar initiatives. For example, the FSA in Japan has launched a FinTech Support Desk, The Monetary Authority of Singapore has formed a FinTech & Innovation Group, whilst the CFPB in the US has Project Catalyst, aimed at small firms.

"Innovation can be an iterative process and the development of a digital solution is therefore unlikely to be perfect first time round. During the phase of any digital development, it's crucial that innovators are allowed the space to develop their solutions"

Christopher Woolard
FCA Director of Strategy and Competition





THE FUTURE OF BLOCKCHAIN

Firstly, it's clear that the future of blockchain is much bigger than Bitcoin, which arguably has failed to deliver on its promise as the currency of the future and has suffered a number of high profile thefts and breaches.

Rather, it is distributed ledger technology such as Ethereum, developed by Vitalik Buterin, that will be the key driver of new applications. Ethereum's ledger can deal with far more data than Bitcoin's can and is extremely efficient. In fact, it is already being used by UBS. Bitcoin payments app Plutus combines bitcoin and Ethereum to enable people to make contactless payments without going via a centralised exchange, which Transport for London has now implemented.

This combination of digital currency and distributed ledger technology points to an interesting – and rewarding – future from a consumer perspective. Self-driving cars might hold their own digital money to pay for fuel, parking spaces and repairs, or allow themselves to be bought or rented by consumers.

HOW BLOCKCHAIN WILL CHANGE THE WAY WE FEEL

The fundamental point about blockchain is that it cuts out a third party and allows multiple parties to agree on a single version of the truth, while not being owned by anyone.

This means that organisations who rely on their provenance, credentials and exclusive access to information for their added value, could find themselves disintermediated. For example, review websites such as TrustPilot, TripAdvisor and Glassdoor have provided a very useful service to consumers and the organisations with whom they

do business. But it's not difficult to fake a review and although the sites have algorithms in place to identify abnormal patterns, there's still a lingering sense of distrust that blockchain could help to eradicate.

However, what blockchain really has the potential to deliver is a new kind of sharing economy. In fact, the future of blockchain and how it could render today's most

disruptive innovations obsolete is being currently debated, most recently at the World Economic Forum in Davos. 'Blockchain Revolution' author, Don Tapscott, suggested that the technology could disrupt services like Uber and Airbnb. With no need for a central arbiter of transactions between drivers and passengers, or homeowners and guests, blockchain creates the backbone of a new kind of sharing economy.

**Blockchain
creates the
backbone for
a new kind
of sharing
economy**



For the first time in history, it is technically possible to go about your everyday life using your smart devices to collect reliable, legally-admissible evidence about every product you buy, every person you meet, every interaction with the public sector – in fact, every event that happens around you.

Next generation blockchain advocates talk of it empowering the individual and creating equal opportunity and distributed value through decentralisation. For example, musicians will be able to receive more than 90% of their income, without the need for managers, production companies, record labels, and the like. Such a system also nurtures collaborative creations and crowdsourcing of music or creativity.

If you're in the UK and you're wondering what's happening to your healthcare records, you just have to trust the NHS. But in blockchain-enabled societies like Estonia, every update and access to healthcare records is registered in the blockchain, making it impossible for the government to cover up any changes.

If you live in the developing world and need banking services, thanks to blockchain innovations, you can use a digital currency instead, accessed through a mobile phone. When McKinsey estimates that 2.5bn people are currently unbanked, that redefines our current understanding of the banking community.

For the first time in history, it is technically possible to go about your everyday life using your smart devices to collect reliable, legally-admissible evidence about every product you buy, every person you meet, every interaction with the public sector – in fact, every event that happens around you.

For the consumer of all of these services, the technology offers the potential for individual consumers to control access to personal records and to know who has accessed them. It redefines the relationship between the individual and both the state and the companies with whom we transact. Today, the big supermarkets won't even give us access to our own loyalty card data. They don't see it as ours, but theirs. Blockchain challenges that assumption.



BRAND STORYTELLING IN A BLOCKCHAIN WORLD

As blockchain will change the relationship between consumers and citizens and companies and government, it will logically change the remit of the marketing and communications agencies that serve them.

We can see the echoes of this future in the recent past, in which social media gave consumers a voice and a platform, and gave brands no choice but to come clean.

Just a decade ago, a customer's buying and decision-making process was largely based on what a brand said about itself. Each stage of the journey centred on the interaction between a prospective buyer and the brand. From the company's website and literature to phone calls, product demonstrations and store visits, the buyer was subjected to little outside influence, with the exception of the media and people in his or her immediate social or business circles. Brand storytelling was just that – the voice of the brand.

With the first wave of digital and social channels and platforms, and the rise of a new generation of influencers, content creation and consumption opportunities, the journey not only became less linear and iterative, but gave prospective buyers access to the experiences of other people as they told stories, not about brands, but about themselves.






Just as it is virtually impossible to falsify transactions in a blockchain because everybody has the same copy of the ledger, it is increasingly difficult for a brand's messages and reputation to be under its sole control. Instead, reputation is consensus-based and, like blockchain, very difficult to subvert.

In a socially-networked world, the role of communications is to ensure that brands have both visibility and credibility at every touch point. Every touchpoint needs to fulfil a complex, multi-functional role of broadcast platform, inspiration station, crisis control room, community hub, listening post, lead and sales generator and customer service department. At the same time, once-siloed departments of PR, digital, social, direct, advertising, events and CRM are converging around a single objective of communication through content.

The concept of a brand being accessible anywhere and everywhere, to anyone and everyone, would once have been a marketer's nightmare. But today, although brands have nowhere to hide, they have every opportunity to engage.

So as an agency, what kind of clients might we have, what kind of briefs might they give us and what kind of services and strategies would they be looking to us to provide across which platforms and media?

In the first case, those companies who rely on their position as trusted third party arbiters in categories such as payments, certification, credit reporting and professional services are going to need to find a new story to tell beyond trust. When trust is, in theory at least, an algorithmic calculation rather than an emotional experience, or when technology allows them to be bypassed altogether, they'll need to add value somewhere else. However, the question that blockchain sceptics are increasingly asking is, what if thinking we don't need our central authorities creates the real danger of realising too late that actually we do?



At the same time, the role of the consumer is less likely to be as a passive recipient of goods and services and more as active collaborator and brand partner. Arguably, the purpose of communications campaigns from brands like Uber and AirBNB is as much to recruit drivers and homeowners as to attract passengers and guests. Blockchain-based utility and cloud computing companies will be less concerned about managing their reputations and communicating offers in order to win new customers and more interested in attracting partners who can bring their energy, whether solar, social or computing power, to

In this new landscape, the purpose of communications will be as much to gain information as provide it and the ideas and experiences of consumers become part of a shared story

the network. This takes the concept of the empowered consumer as brand storyteller to a whole new level.

Similarly, in this new landscape, the purpose of communications will be as much to gain information as to provide it and the ideas and experiences of consumers will be added to the blockchain to become

part of a shared story between themselves and brands. In a blockchain world, ledgers such as Tesco Clubcard data could be available for consumers to crunch themselves, share with friends across decentralised, unbranded social networks, bulk-buy with like-minded contacts, and negotiate their own special offers.

At the end of the day, it won't be a case of which technology will win the battle but which personality. When ultra-libertarian Satoshi Nakamoto first came up with the concept of blockchain nearly a decade ago, his idea was to find a way to disintermediate the authorities, be they banks, governments or just big, powerful brands. Given the attention that these authorities are now giving to blockchain, it's ironic that a technology designed to set people free is being enthusiastically adopted as a way of keeping them loyal to brands and monitor their civic movements and behaviour.

It's all very well talking about the potential for blockchain to create new sharing economies, but it takes people with drive and charisma to champion and lead those movements, and armies of people willing to serve them. It might be fun and rewarding but is it democracy? At the same time, if we stop asking awkward questions and start automatically trusting because we don't have any choice, does that make us safer or ultimately more vulnerable?