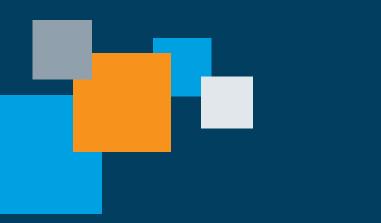


# Propel your FinTech Ambition





## FinTechs are reimagining the financial services landscape, and as a financial services specialist agency, we know from experience the optimal communication investment needed for a fintech to successfully transform from a fledgling start up to an IPO.

Recognising how your communications need to change to grow your fintech proposition, our Propel solutions have been specifically tailored to provide powerful, agile support whether you are transforming a traditional business, or just starting up.

To fire your FinTech ambition, read our thoughts on what blockchain means for communications and brand storytelling. For us, never before has clarity on brand purpose been so necessary.

To find out more about our Propel solutions contact us on **0207 360 7878** or email **fintech@teamspirit.uk.com** 



## Blockchain is FinTech's major new buzzword. But what exactly is it, and what difference is it going to make?

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.

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."

Accenture has debuted a prototype of an 'editable' blockchain for enterprise and permissioned systems. The consultancy is seeking a patent for its 'chameleon hash' technique to allow a central administrator to edit or delete information on a blockchain, which would be used in. Whilst this has angered purists who argue that immutability is a fundamental tenet of blockchain, Accenture argues that some form of editing is essential for cases such as the 'right to be forgotten' legal right, human error and illegal actions.

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.

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Chad Cascarilla CEO of itBit

## 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.



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

The benefits of blockchain

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, for instance.

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 in all board-level activities.

#### **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.

#### **Applications for blockchain**

Smart contracts
Social networking
<ul> <li>Payments, settlement and clearing</li> </ul>
<ul> <li>Anti-counterfeiting and brand authenticity</li> </ul>

brand authenticity

- Digital aposto

- Prediction markets
- Cloud storage
- Internet of things



#### 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 in which 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 its 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 financial services**

New use cases for blockchain are appearing all the time, particularly in the financial sector. Two surveys recently conducted by IBM found that blockchain solutions are being adopted by financial services companies dramatically faster than initially expected. 15% of banks and 14% of financial market institutions surveyed intend to implement full-scale commercial blockchain solutions in 2017. 65% of banks expect to have solutions in production in the next 3 years. The focus is on 4 key areas: clearing and settlement, wholesale payments, equity and debt issuance, and reference data.

For example, 60 banks are members of **R3**, a global innovation consortium for blockchain research and development. Its members have currently tested out projects around the issuing, trading and redeeming fixed income products on 5 blockchains.

More recently 8 members including HSBC and State Street, have successfully tested a blockchain platform powered by Intel for bond transactions. Featuring advanced smart contract technology, the platform enables trading, matching, and settlement of U.S. Treasury bonds, as well as automated coupon payments and redemption.

15 members of R3 have also successfully completed two prototypes using distributed ledger technology to address the two key challenges of the \$45 billion global trade finance industry, namely Accounts Receivable and Letter of Credit transactions. R3 estimates that the technology could potentially reduce operational and compliance costs of paper-based trade financing by 10 to 15% and provide a platform for banks to grow revenues by as much as 15%.



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 carry out auditing, in near real time.

**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.

Elsewhere in BNP Paribas, its Securities Services (the bank's custody arm) has announced a new blockchain initiative. In partnership with three French renewable energy crowdfunding providers, it will maintain a record of all mini-bonds issued through the platform, including information ownership. The solution will help to standardise processes around the trade lifecycle of mini-bonds, providing security as well as speed and efficiency for the transactions.

**IBM**, having recently completed a successful pilot project with UnionPay China to let bank customers exchange bonus points in different loyalty schemes, has now signed a contract with the Bank of Tokyo-Mitsubishi for a pilot blockchain project to automate business transactions between the two companies. This is one of the first projects built on the Hyperledger Project, an open source, IBM Cloud-based blockchain platform.

**BNY Mellon, Deutsche Bank, ICA and Santander** have partnered with **UBS** and **Clearmatics** to advance the Utility Settlement Coin concept, a blockchain-based way of making payments and settling transactions between the partners, quickly, compliantly and with reduced systemic risk.

**Hitachi** and the **Bank of Tokyo-Mitsubishi** have started work on a blockchain project for the issuing, transferring and collecting electronic cheques in the Republic of Singapore.

**Visa Europe Collab** is looking for partners to join a new pilot the company has begun with blockchain specialist BTL group. The pilot will look at ways in which a blockchain-based settlement solution can build on BTL's interbank settlement platform Interbit to reduce the friction, cost, time and risk of domestic and cross-border transfers between banks across multiple currencies.

**Bank of America Merill Lynch, HSBC** and the InfoComm Development Authority of Singapore have jointly developed a prototype solution built on blockchain technology to transform the previous paper-based Letter of Credit transactions by sharing information between exporters, importers and their respective banks on a private distributed ledger with deals automatically executed through a series of digital smart contracts.

**BNY Mellon** has developed a test system that leverages blockchain technology to create a backup record of its brokerage transactions. The new system, which operates alongside BNY's existing transaction records system, aims to not only provide an operational buffer in the event that the first layer of transaction records becomes unavailable, but enables the bank to make a more gradual switch to a blockchain solution.

**Ripple**, the global settlement network has created an interbank group for global payments based on blockchain technology. The group, known as the Global Payments Steering Group (GPSG), will oversee the creation and maintenance of Ripple payment transaction rules and standards. This is the first time that major banks have formulated policies to govern the transfer of money across borders using blockchain.

**Santander** is working on a project to digitize customer cash using the public ethereum blockchain. In the future, the bank's customers could convert money from their accounts into a tokenized online, currently called Cash ETH, that would be redeemable for paper currency.

**Barclays** and fintech start-up **Wave** claim to have become the first organisations to complete a global trade transaction using distributed ledger/blockchain technology. The letter of credit (LC) transaction between Ornua (formerly the Irish Dairy Board) and Seychelles Trading Company is the first to have trade documentation handled on the new Wave platform, with funds sent via Swift.

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



## The problem with blockchain

However, 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 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 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.

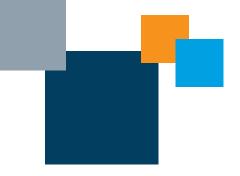
Plans are also afoot to give the Innovation Hub a more international reach. In the past year, over 25 overseas innovators have approached the Hub either for support or to learn more, and the aim is to have cooperation agreements in place with key regulators to reduce some of the barriers to UK authorised 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 Hong Kong Monetary Authority has launched a FinTech Innovation Hub to test blockchain and distributed ledger solutions. The Hub will enable the financial services industry to conduct trials in a safe, controlled and collaborative environment and allow regulators to provide early inputs to the trial works before the actual implementation.

Separately, 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 as 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. Recently, 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 itself 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 trusted 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, can 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 will 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.

Next generation blockchain advocates talk of it empowering the individual and creating equal opportunity and distributed value through decentralisation. For example, artists 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.

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



FinTech Propel by Teamspirit

## Brand storytelling in a blockchain world

As this 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 in blockchain in which it is virtually impossible to falsify transactions 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 touchpoint. 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 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 whether 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

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

order to win new customers and more interested in attracting partners who can bring their energy, whether solar, social or computing power, to 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 the Tesco Clubcard data could be available for consumers to crunch for 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?





To find out more about our Propel solutions contact us on **0207 360 7878** or email **fintech@teamspirit.uk.com**