

Recent trends in blockchain applications



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This report contains a selected number of references to recent trends and news articles published mainly **circa September to mid-November 2018**, pertaining to **blockchain applications**.

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Recent trends in blockchain applications (September to mid-November 2018)

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Executive Summary

The blockchain is one of the prominent emerging technologies which are fuelling the Fourth Industrial Revolution, with all the promise and peril to disrupt companies and industries. As such, it presents strategic business risks to companies across the board, whether as opportunities or as threats. Either way, blockchain has the inherent ability to drive major disruption. Given the broad range of applications, it is a 'universal technology', and one that decision makers in all industries should take serious note of.

Rather than being manifested in hardware or software per se, blockchain is the mathematical embodiment of a method to guarantee "trusted transactions" or "trusted data". Known as a "distributed ledger system", the same information detailing all transactions is stored on a large number of computers all across the globe. This makes it (virtually) impossible for anyone to tamper with information without alerting the rest of the world and invalidating the transaction.

Blockchain is well known as the technology underpinning cryptocurrencies, such as Bitcoin and Ethereum. However, the technology can – and is – also be applied to a wide spectrum of other applications, typically those which benefit from an inherent technology-based "trusted broker".

It is important to recognise that there are two types of blockchain networks – the public blockchain underlying cryptocurrencies such as Bitcoin or Ethereum, and private or permissioned blockchains. The economics/technology and other means of implementation for the two types are very different. The main innovation behind the public blockchain is establishing consensus among decentralized, anonymous participants. The current implementation of Bitcoin blockchain, for example, requires vast amounts of computational power to achieve this consensus using a proof-of-work protocol. In contrast in private or permissioned blockchain, access is controlled by an entity or a group of entities. Private blockchain is similar to databases for the storage of digital information.

This newsletter provides references to recent reports on the use of blockchain technologies in finance, banking and insurance, cyber security, energy, food and agriculture, health, logistics and supply chain, manufacturing, marketing and advertising, smart cities and real estate, tracking, trade

and transport. The emergence the “self-executing smart contract” is an example of a blockchain-based legal instrument.

As is the case with several other emerging technologies, blockchain is also having a profound impact on the future of the world of work. Not only is it creating new jobs, but entirely new types of jobs – while at the same time triggering the demise of jobs that will follow their core technologies into obsolescence. It is not surprising then, to note the high demand for training in this area, and the number of new university programmes being offered.

What is block chain and why is it important ?

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- **Blockchain: What is it, and why does it matter?**

(Source: CNN, 6 Oct 2018) [\[Return comment\]](#)

“A-list companies like Amazon, Facebook, IBM, and Walmart believe blockchain technology can track shipments, store data more efficiently, and do many other helpful things. They aren’t alone in embracing the technology, which many people believe could revolutionize logistics, food safety, banking, and even voting”

- **Blockchain explained: What it is and isn’t, and why it matters**

(Source: McKinsey) [\[Return comment\]](#)

- **Blockchain development and its usefulness for business**

(Source: Oracle Times) [\[Return comment\]](#)

- **Blockchains don't have to be perfect, they just have to be better**

(Source: Coin Desk) [\[Return comment\]](#)

- **Explaining Bitcoin and blockchain**

(Source: Global Banking and Finance, 25 Oct 2018) [\[Return comment\]](#)

“Bitcoin and blockchain – I’m sure most people have heard of both over the last few years, but many are still not quite sure what these are. A little reminiscent of the ‘Internet’, ‘The Cloud’ or even more recently the ‘Internet of Things’, people hear new terms like these and even use them in everyday conversations, but in the background are often quietly confused about what they are or even what they actually do.”

- **Everything HR needs to know about blockchain**

(Source: HR Bartender) [\[Return comment\]](#)

- **Four blockchain myths (debunked)**

(Source: Forbes, 5 Nov 2018) [\[Return comment\]](#)

“You’ve probably heard about blockchain – the technology behind bitcoin – which is an incorruptible decentralized digital ledger for recording transactions. Ever since the launch of bitcoin, blockchain has taken the business world by storm.”

- **Here's how blockchain will fit into your life in 10 years**

(Source: CNBC) [\[Return comment\]](#)

- **How blockchain actually disrupts industries**

(Source: AMB Crypto) [\[Return comment\]](#)

- **I’m very sorry, but you’re going to have to learn to love the blockchain**

(Source: TechCrunch) [\[Return comment\]](#)

- **Is blockchain the ‘least useful technology in history’?**

(Source: Tech Republic) [\[Return comment\]](#)

- **The potential power of blockchain technology**

(Source: Gas Today, 8 Nov 2018) [\[Return comment\]](#)

“Yet another step into the digital age is upon the oil and gas sector, this time in the form of the revolutionary blockchain technology. The domestic upstream oil and gas industry is amongst the most promising and innovative globally, having contributed more than \$300 billion to our local economy and continually playing an important part in the growth and future of Australia.”

- **The promise of the blockchain technology**

(Source: Economist) [\[Return comment\]](#)

- **The short-sightedness of blockchain disillusionment**
(Source: Gartner) [\[Return comment\]](#)
- **The state of blockchain: 11 stats**
(Source: Enterprisers Project, Oct 2018) [\[Return comment\]](#)
“Whether you’re a blockchain bull, bear, or somewhere in between, there are numbers out there to back up your point of view. On the bullish side, analysts expect enormous, multi-billion-dollar growth of the global blockchain technology market.”
- **The strategic business value of the blockchain market**
(Source: McKinsey) [\[Return comment\]](#)
- **The truth about blockchain: Prove the value**
(Source: Forbes, 29 Oct 2018) [\[Return comment\]](#)
“The hype surrounding blockchain has set records both for the incredible level of noise and the revolutionary claims attached to this emerging technology. Yet, to my knowledge there are almost no major corporate operations on blockchain.”
- **Understanding how blockchain works**
(Source: Fleet Owner, Oct 2018) [\[Return comment\]](#)
“Blockchain is a decentralized, distributed digital ledger that cannot be altered retroactively. It could change the transportation industry. Lately there is been a great deal of media buzz around blockchain.”
- **What is blockchain technology?**
(Source: CB Insights) [\[Return comment\]](#)
- **What is a blockchain?**
(Source: MIT Technology Review) [\[Return comment\]](#)

Trends

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- **84% of execs studying blockchain, but deployment ‘stagnant’**
(Source: Retail Dive) [\[Return comment\]](#)
- **187 Things the blockchain is supposed to fix**
(Source: Wired) [\[Return comment\]](#)
- **Appraising the luxury goods market with blockchain technology**
(Source: Forbes) [\[Return comment\]](#)
- **Big data, the internet of things and blockchain: Benefits of merging the trending trio**
(Source: Smart Data Collective) [\[Return comment\]](#)
- **Blockchain and Bitcoin are the world’s biggest scams**
(Source: Computer World, Oct 2018) [\[Return comment\]](#)
“A New York University professor and global economist testified before the US Senate Committee on Banking recently, saying cryptocurrencies such as bitcoin are the mother of all scams and bubbles.”
- **Blockchain business in Crypto Valley has doubled since last year**
(Source: Bitcoin Magazine, 10 Oct 2018) [\[Return comment\]](#)
“The number of blockchain-related companies in Switzerland and Liechtenstein has doubled in the last year, according to a new study published by CV VC”
- **Blockchain initiative is going mainstream but half of companies are struggling**
(Source: Value Walk, 25 Oct 2018) [\[Return comment\]](#)
“Bitcoin introduced the world to blockchain, the technology that underpins the cryptocurrency, which has the potential to dramatically improve the speed and security of networks around the globe. And even though bitcoin has struggled to take off in the way many of the cryptocurrency’s most prominent supporters might have hoped, blockchain still has plenty of potential.”
- **Blockchain interoperability: A necessity for effective adoption**
(Source: Coin Speaker) [\[Return comment\]](#)

- **Blockchain is airdropping \$125m in Stellar lumens to its wallet users**
(Source: Bitcoin Magazine, 6 Nov 2018) *[Return comment]*
“Blockchain will be airdropping approximately \$125 million worth of Stellar lumens to its users, in conjunction with the Stellar Development Foundation. This marks the largest airdrop in cryptocurrency history.”
- **Blockchain nodes**
(Source: Disruption Hub, 15 Oct 2018) *[Return comment]*
“Blockchains nodes power the network, maintaining copies of the blockchain and running the software that is necessary to process transactions such as the exchange of data or funds. Nodes can be any electronic devices, from computers to smartphones, as long as they have the ability to connect to the internet”
- **Blockchain revenues to hit \$10.6 billion by 2023**
(Source: MHL News) *[Return comment]*
- **Blockchain technology encourages new models of demand response participation**
(Source: PR Newswire) *[Return comment]*
- **Blockchain to generate more than \$10.6B in revenue by 2023**
(Source: Computer World, 18 Oct 2018) *[Return comment]*
“Driven mainly by financial technology (fintech) investments, blockchain has seen a fast uptick in adoption for application development and pilot tests in a number of industries and will generate more than \$10.6 billion in revenue by 2023, according to a new report from ABI Research”
- **Bringing together blockchain, ecommerce and content**
(Source: Smart Data Collective) *[Return comment]*
- **Can blockchain unlock a sustainable future?**
(Source: EDF) *[Return comment]*
- **Filling the blockchain chasm**
(Source: Computer Weekly) *[Return comment]*
- **Five crucial challenges for blockchain to overcome**
(Source: CNBC) *[Return comment]*
- **Global blockchain technology market 2018 - Global industry analysis by key players, segmentation, trends and forecast by 2023**
(Source: Empowered News) *[Return comment]*
- **Here’s the quiet work being done to make blockchain a force for good**
(Source: Market Watch, Oct 2018) *[Return comment]*
“Groups including the OECD are helping to advance international regulations for the new technology It’s increasingly common, especially in the United States and even in the European Union, to hear complaints that political and regulatory institutions are ineffective in grappling big problems.”
- **How new database innovations multiply blockchain use**
(Source: Smart Data Collective) *[Return comment]*
- **PwC Global Survey: Corporate interest in blockchain on the rise**
(Source: Bitcoin Magazine) *[Return comment]*
- **Responsible blockchain world championship to choose top 30 blockchain innovations**
(Source: Crypto Vest, Oct 2018) *[Return comment]*
“FinTech4Good launched the Responsible Blockchain World Championship to choose the top 30 blockchain innovations from across the globe. Leaders from across the globe gathered at the Silicon Valley to join some of the most exciting start-ups in the distributed ledger technology (DLT) space for the Responsible Blockchain World Championship (RBWC) launch to pick the best blockchain innovations”
- **Swiss exchange SIX expects blockchain-platform to rule in 10 years**
(Source: Reuters, 14 Nov 2018) *[Return comment]*
“Swiss exchange SIX expects its traditional trading platform to be overtaken within a decade by an alternative it is launching that will be based on blockchain technology”

- **The birth of block-cloud: Reinventing the cloud with blockchain**

(Source: Dataconomy, 8 Oct 2018) [\[Return comment\]](#)

“The internet of things (IoT) has become one of the most influential technologies, currently connecting more than 23 billion devices. This number is expected to reach 30 billion by 2020 and more than 60 billion by 2024. But the future of this technology is largely debatable, considering that it’s plagued by a poor business model, inadequate connectivity and scalability, as well as lack of overall trust due to cracked security. Researchers have proposed using SCN or service-centric networking as a means of providing global connectivity and reliable scalability, however, this approach cannot guarantee service incentives, nor trust and security. Another solution for this issue is to use blockchain technology as a means of achieving security, trust and incentivizing IoT”

- **The innovation decoy and the blockchain**

(Source: Disruption Hub) [\[Return comment\]](#)

- **What are the leading blockchain trends in 2018?**

(Source: Market Business News, 23 Oct 2018) [\[Return comment\]](#)

“In the last few years, blockchain technology has been best-known as the foundation beneath the world’s most successful cryptocurrencies, including Bitcoin and Ethereum. However, more recently, blockchain has become an industry in its own right, stepping out of cryptocurrency’s shadows and providing blockchain-based solutions across a host of industries.”

Augmented reality (AR), virtual reality (VR) and gaming

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- **IBM patent uses blockchain to build trust in augmented reality gaming**

(Source: ZD Net, 5 Nov 2018) [\[Return comment\]](#)

“IBM has filed a new patent with the aim of instilling trust in augmented reality (AR) applications when users visit real-world locations”

- **Welcome to the blockchain-based multiverse — it will change gaming forever**

(Source: Hacker Noon) [\[Return comment\]](#)

Artificial Intelligence (AI) and machine learning

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- **Artificial intelligence, machine learning and blockchain**

(Source: Cryptocurrency Guide, 30 Oct 2018) [\[Return comment\]](#)

“Big, big data is needed to power worthy AI predictive models, but that is still a work in progress, says a former lead investor in Google DeepMind. No dispute that Google DeepMind is a leading light in artificial intelligence research and its application for positive impact.”

- **How big data, artificial intelligence and blockchain will shape the future of asset management**

(Source: BBN Times, 9 Oct 2018) [\[Return comment\]](#)

- **How the blockchain could break big tech’s hold on artificial intelligence**

(Source: SF Gate, 19 Oct 2018) [\[Return comment\]](#)

- **Intraspexion’s eighth patent win uses blockchain to enable deep learning**

(Source: Artificial Lawyer) [\[Return comment\]](#)

- **The future of blockchain: Technology partnerships with artificial intelligence, bots and the internet of things**

(Source: ReadWrite) [\[Return comment\]](#)

- **Understanding the power of blockchain infused with artificial intelligence**

(Source: TechRadar) [\[Return comment\]](#)

Blockchain-as-a-service

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- **Chinese retailer JD.com builds blockchain-as-a-service app store**

(Source: Distributed) [\[Return comment\]](#)

- **Tech giants in blockchain: Amazon, Microsoft, Facebook and others are building and selling blockchain services**

(Source: CB Insights) [\[Return comment\]](#)

Banking and finance

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- **72-year-old Fidelity bets on the future with blockchain, virtual reality and artificial intelligence**
(Source: CNBC) [\[Return comment\]](#)
- **A look at the vital role blockchain is playing in banking the unbanked**
(Source: TechRadar) [\[Return comment\]](#)
- **Blockchain grows up as bankers take the place of 'crypto cowboys'**
(Source: The Street) [\[Return comment\]](#)
- **Germany's central bank claims success in blockchain settlement trial**
(Source: Coin Desk, 25 Oct 2018) [\[Return comment\]](#)
"Deutsche Bundesbank, Germany's central bank, and Deutsche Börse, owner of the Frankfurt Stock Exchange, have completed a blockchain trial investigating the technology's potential in securities settlement."
- **How banks can become blockchain innovators — or fall behind**
(Source: Brink News) [\[Return comment\]](#)
The latest tech trends in asset management companies are suggesting an increase in the automation of functions such as risk assessment, market research and analysis, as well as asset trading. Asset management firms are tasked with handling their clients' wealth and investments by mitigating risks and maximizing profitability
- **How blockchain is disrupting enterprise finance and accounting departments**
(Source: CMS Wire) [\[Return comment\]](#)
- **IBM debuts stellar-powered 'blockchain world wire' payments system**
(Source: Coin Desk) [\[Return comment\]](#)
- **JPMorgan's focus on blockchain is part of digital transformation roadmap**
(Source: Coin Telegraph) [\[Return comment\]](#)
- **Kenyan banks seek regulatory approval to use blockchain tech**
(Source: Bloomberg) [\[Return comment\]](#)
- **Large Canadian bank pilots blockchain/DLS for standby letters of credit**
(Source: Crowdfund Insider, 23 Oct 2018) [\[Return comment\]](#)
"The National Bank of Canada, the country's seventh largest bank, is piloting a program to offer the creation and negotiation of standby letters of credit on a blockchain / distributed ledger system"
- **Mass adoption of blockchain in payment is near**
(Source: BC Focus) [\[Return comment\]](#)
- **Standard Chartered in blockchain bank-guarantee pilot**
(Source: Disruptive Asia) [\[Return comment\]](#)
- **Why credit unions need to understand and leverage blockchain**
(Source: CU Times, 26 Oct 2018) [\[Return comment\]](#)
"In recent years, the tech industry has been buzzing with mentions of blockchain. As headlines continue to tout blockchain's world-changing potential, many still find themselves asking, 'What is blockchain?'"
- **World Bank bond blockchain offers key insights**
(Source: Coin Desk) [\[Return comment\]](#)
- **World Bank is a verified blockchain booster**
(Source: MIT Technology Review) [\[Return comment\]](#)

Corporate and industry applications

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- **7 Ways blockchain is disrupting every industry on earth**
(Source: Smart Data Collective, 18 Oct 2018) [\[Return comment\]](#)
"In 2008, Satoshi Nakamoto, the alias of the person who created Bitcoin, announced the launch of the world's first digital currency. Nakamoto believed that the invention would have a strong impact on the future of the financial industry."
- **ABP jumps on the blockchain bandwagon**
(Source: World Maritime News) [\[Return comment\]](#)

- **Architecting a blockchain solution for the enterprise**
(Source: Jaxenter) *[Return comment]*
- **Blockchain: 5 use cases for the enterprise**
(Source: Information Week) *[Return comment]*
- **Blockchain in retail: Fewer counterfeits and faster product recalls**
(Source: Vox, 18 Oct 2018) *[Return comment]*
“De Beers is putting diamonds on the blockchain. Walmart is putting lettuce on the blockchain. Start-ups are putting skin care and liquor and fancy watches on the blockchain. By now, it may be safe to say that if someone, somewhere is selling something, someone else is thinking about how a distributed ledger with a buzzy name might help them do it better”
- **Blockchain, Inc: A look at the ownerless company of tomorrow**
(Source: CB Insights, 18 Oct 2018) *[Return comment]*
“Here’s a view of what a decentralized, all-code company might look like in its initial form. It’s no secret that everyone from small start-ups to major corporations is jumping on the blockchain trend. As tech giants like Facebook explore blockchain as a means to reinvent themselves, start-ups are working on blockchain projects that could displace services like AWS (as with Filecoin) or loosen tech companies’ hold on personal information”
- **Blockchain technology is a reckoning force - here are the industries it will impact**
(Source: Entrepreneur) *[Return comment]*
- **Coke’s on the blockchain now, courtesy of the lightning network**
(Source: The Next Web) *[Return comment]*
- **Could blockchain boost the triple bottom line worldwide?**
(Source: Triple Pundit) *[Return comment]*
- **DARPA blockchain programs**
(Source: VM Blog) *[Return comment]*
- **Deloitte report identifies five key progress vectors that could drive blockchain’s wider adoption**
(Source: Coin Report) *[Return comment]*
- **Deloitte’s Dublin Lab is bringing blockchain into the real world**
(Source: Silicon Republic) *[Return comment]*
“Blockchain is at a tipping point, going from ideation to solving real world problems. And Deloitte’s EMEA Blockchain Lab in Dublin is at the heart of the action. Working with major organisations around the world, Deloitte’s EMEA Blockchain Lab in Dublin is spearheading the deployment of blockchain.”
- **Essential advice for businesses considering the blockchain**
(Source: Fortune, 17 Oct 2018) *[Return comment]*
“Blockchain technology began with Bitcoin, but it has since been coopted by businesses as the preferred brand name for all sorts of cryptographically spruced up databases. Just about every corporate innovation program is experimenting with, or at least eyeing, the trend—look, boss, we’re innovative
- **GoEureka uses blockchain to unlock 400,000 hotel rooms with zero commission**
(Source: Venture Beat) *[Return comment]*
- **How blockchain stands to transform the luxury economy with digital assets**
(Source: Coin Speaker) *[Return comment]*
- **How IBM will use blockchain as its commerce backbone**
(Source: Venture Beat) *[Return comment]*
- **HTC exodus, the blockchain smartphone launched in October 2018**
(Source: Gizbot, Oct 2018) *[Return comment]*
“HTC launched world’s first native blockchain smartphone in October 2018. The HTC Exodus was initially announced in May 2018, mainly for those, who are interested in a device with high-level security with support for the crypto wallet.”
- **Hype no more: 56% of enterprises plan to use blockchain by 2020**
(Source: Tech Republic) *[Return comment]*

- **IBM will use blockchain to prevent counterfeiting of Seagate's hard drives**
(Source: Venture Beat, 8 Nov 2018) *[Return comment]*
"Seagate Technology and IBM have teamed up to use blockchain technology to reduce the counterfeiting of hard disk drives. Blockchain is the transparent and secure decentralized ledger behind Bitcoin and other cryptocurrencies, but its usefulness transcends a lot of other parts of tech, and the two companies will use it to uniquely identify hard drives — and perhaps other products — to prevent counterfeiting."
- **Implementation of blockchain technology to improve maritime port connectivity**
(Source: Cryptocurrency Guide) *[Return comment]*
- **Inside CPB's 'fail fast' approach to blockchain**
(Source: CIO Dive) *[Return comment]*
- **Music on the blockchain: eMusic makes a compelling case for token-based listening**
(Source: The Next Web) *[Return comment]*
- **Ofcom investigates how blockchain can be used to distribute phone numbers**
(Source: TechRadar) *[Return comment]*
- **Oracle unveils business-ready blockchain applications**
(Source: Cryptocurrency Guide, 25 Oct 2018) *[Return comment]*
"To help customers increase trust and provide agility in transactions across their business networks, Oracle has launched Oracle Blockchain Applications Cloud. The new suite of use-case-specific SaaS applications enhance traceability and transparency throughout the supply chain."
- **Oracle's quest to make blockchain disappear completely**
(Source: CIO, 30 Oct 2018) *[Return comment]*
"Oracle announced it would soon be launching four supply chain use case focused blockchain applications. And it won't be stopping there. "This is a starting point."
- **Public blockchains for private business data**
(Source: Computer World, 6 Nov 2018) *[Return comment]*
"Accounting and consultancy firm Ernst & Young (EY) has developed a public blockchain network for private business transactions and plans to launch in 2019. Enterprise blockchains typically run on private or permissioned blockchains, which are centrally administered but invitation-only affairs for those using the peer-to-peer, decentralized transactional network."
- **PwC creates digital skills program to train employees on 3D printing, drones and blockchain**
(Source: 3Ders) *[Return comment]*
- **PwC eyes blockchain opportunities and risks**
(Source: Accounting Today) *[Return comment]*
- **Spanish coastal city Valencia to create a smart port with blockchain technology**
(Source: CCN) *[Return comment]*
- **The top CPG and consumer blockchain initiatives**
(Source: CB Insights) *[Return comment]*
- **Why blockchains struggle to gain traction in enterprises**
(Source: Coin Desk, 4 Nov 2018) *[Return comment]*
- **Why EY is investing in artificial intelligence, data and blockchain technology initiatives**
(Source: Search CIO) *[Return comment]*
"Ernst & Young isn't afraid of digital disruption; it's embracing it – to the tune of \$1 billion dollars. The "Big Four" accounting firm – which has 260,000 employees working in over 150 countries across the globe – recently announced that it would invest \$1 billion in "new technology solutions, client services, innovation and the EY ecosystem" over the next two fiscal years."
- **UK firm Gospel sees bright future in blockchain data storage**
(Source: IoT World Today) *[Return comment]*
- **Why VMware is involved in blockchain**
(Source: ZD Net) *[Return comment]*
- **Will adding blockchain to RCS save telecoms? Or even RCS?**
(Source: Disruptive Asia) *[Return comment]*

Cryptocurrencies (Bitcoin, Ethereum and others)[\[Back to Quick links\]](#)

- **Australian stock exchange plans to release blockchain technology for settlements in 2021**

(Source: BC Focus, 25 Oct 2018) [\[Return comment\]](#)

“The Australian Securities Exchange (ASX), Australia’s main stock exchange, recently announced that it plans to release blockchain technology for settlements in 2021. However, it does not mean that the company is “buying into the hype around the new system”

- **Bancorx, the cross-blockchain bridge between Ethereum and EOS is now live**

(Source: BC Focus) [\[Return comment\]](#)

“Bancor, the world’s leading decentralized exchange protocol (DEX) on the Ethereum blockchain, announced the launch of a new platform called the BancorX. It enables automated conversions between Ethereum-based assets and EOS assets without going through the whole process of depositing funds on an exchange and without the need of order matching between buyers and sellers.”

- **Binance’s blockchain charity foundation launches blockchain-based donation portal**

(Source: Blokt, 26 Oct 2018) [\[Return comment\]](#)

“The 73rd anniversary of the UN Day marked an important event for the blockchain community. Binance’s Blockchain Charity Foundation (BCF) launched a blockchain-based donation portal at the UNCTAD World Investment Forum.”

- **Bitcoin mining (in a mine) without breaking the bank or the planet?**

(Source: Forbes, 9 Nov 2018) [\[Return comment\]](#)

“Bitcoin mining, using sophisticated computers to create new bitcoins through the peer-to-peer blockchain network, is a costly endeavor that takes its toll on the environment and resources. That’s the widely accepted perception but is it possible to mine bitcoin more cheaply and in a less environmentally damaging way?”

- **Blockchain launches a hardware wallet called Lockbox**

(Source: Coin Dais, 26 Oct 2018) [\[Return comment\]](#)

“Cryptocurrency software provider Blockchain has announced the launch of a custom hardware wallet called Lockbox, that is exclusively tethered to the company’s flagship wallet. According to the development team behind the new hardware wallet, the firm collaborated with the wallet manufacturer Ledger in order to create the design.”

- **Cryptocurrencies could be the next revolution in online payments**

(Source: Reuters, 29 Oct 2018) [\[Return comment\]](#)

“The ramifications of blockchain might yet be unknown but the implications of the technology are immense for the financial services industry, with many blockchain applications challenging the status quo of global payments.”

- **Cryptocurrencies have failed, and blockchain still has yet to find its use**

(Source: Forbes, 11 Nov 2018) [\[Return comment\]](#)

“There are two common patterns in technological invention and its subsequent commercialization. The first is a technological breakthrough that sparks interests in commercializing it. The invention of the transistor in the legendary Bell Lab in the 1940s (which later gained the three inventors the Nobel Prize in Physics) fits this pattern.”

- **Demystifying: Cryptocurrency mining threats**

(Source: Cisco, 11 Nov 2018) [\[Return comment\]](#)

“How to protect your endpoints from “creepy crypto miners”. Cryptocurrency mining threats can lead to the slow death of your computers – capable of literally melting smartphones in some cases – by overworking the CPU beyond its normal capacity.”

- **EOS lacks blockchain’s most fundamental aspect ‘immutability’**

(Source: AMB Crypto, 3 Nov 2018) [\[Return comment\]](#)

“A research commissioned by ConsenSys and conducted by blockchain testing company based in Los Angeles, Whiteblock, said that the world’s fifth-largest cryptocurrency, EOS, is not a blockchain, but a ‘cloud service’.”

- **Facecoin: Here's what Facebook could build in blockchain and cryptocurrency**
(Source: CB Insights) [\[Return comment\]](#)
- **The crypto intro: Your guide to mastering Bitcoin, Ethereum, Litecoin, cryptoassets, blockchain and cryptocurrency investing**
(Source: Irish Tech News) [\[Return comment\]](#)
- **US Congressman leads the way in support of blockchain and cryptocurrencies**
(Source: BC Focus) [\[Return comment\]](#)
- **US Senate turns into battleground as opponents face each other on cryptocurrencies and blockchain**
(Source: Crypto News) [\[Return comment\]](#)

Cyber security and encryption

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- **Can blockchain help reduce the financial industry's cyber risk?**
(Source: Brink News) [\[Return comment\]](#)
- **How blockchain technology is transforming healthcare cybersecurity**
(Source: Biz Journals) [\[Return comment\]](#)
- **How blockchain will herald a new era of security for your business operations**
(Source: TechRadar) [\[Return comment\]](#)
- **What Dr Seuss can teach us about bringing cybersecurity onto the blockchain**
(Source: Forbes, 2 Nov 2018) [\[Return comment\]](#)
“ ‘Oh, the things you can find, if you don't stay behind’ - Those words, uttered by Theodor Seuss Geisel, or as we know him, Dr. Seuss, still has the power to change the world, even with cybersecurity and blockchain technology.”
- **Why artificial intelligence, blockchain, and enhanced encryption are the future of enterprise data security**
(Source: CB Insights, 27 Sep 2018) [\[Return comment\]](#)

Education, training and universities

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- **Blockchain technology introduced in New York University's MBA program, following growing interest**
(Source: BC Focus) [\[Return comment\]](#)
- **Colleges are baffled by Bitcoin donations**
(Source: Bloomberg, 16 Oct 2018) [\[Return comment\]](#)
“The University of Puget Sound got an offer it wasn't sure how to accept. A recent graduate had hit the jackpot and wanted to make a donation to the school. In Bitcoin”
- **Espresso partners with general assembly to create free blockchain educational panel**
(Source: Blokt) [\[Return comment\]](#)
- **Is the \$70m university blockchain agenda going anywhere?**
(Source: Forbes, Oct 2018) [\[Return comment\]](#)
“Seventy-million dollars is a lot of money donated to one cause. In this case, the cause is the future of blockchain and the donors are the Ethereum Foundation and Ripple's University Blockchain Research Initiative.”
- **Ripple for Good to promote blockchain education, financial inclusion**
(Source: Investing) [\[Return comment\]](#)
- **Universities should address demand for blockchain skills**
(Source: University World News) [\[Return comment\]](#)
- **Woolf University: Blockchain for education**
(Source: Disruption Hub) [\[Return comment\]](#)
- **World's first blockchain university to begin teaching in 2019**
(Source: ABC News) [\[Return comment\]](#)

Elections and voting

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- **Top 5 things to know about voting and blockchain**

(Source: Tech Republic) [\[Return comment\]](#)

- **Blockchain voting comes to America: West Virginia's voatz experiment**

(Source: Distributed) [\[Return comment\]](#)

- **Is blockchain the answer to election tampering?**

(Source: Forbes, 2 Nov 2018) [\[Return comment\]](#)

"With the midterm elections upon us, the news is once again buzzing about election tampering. There's a lot at stake given that 33 senators are up for re-election this fall. There are also 36 governors' races this year."

Energy and the environment

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- **Blockchain can extend battery life by revealing origin**

(Source: Bloomberg NEF, 16 Oct 2018) [\[Return comment\]](#)

"Everledger Ltd wants to use its experience determining the provenance of diamonds to improve the sustainability of the global supply chain for electric vehicle batteries."

- **Blockchain solutions can fix environmental challenges: WEF**

(Source: RTT News) [\[Return comment\]](#)

- **Blockchains could help clean up the planet—if they don't become environmental problems themselves**

(Source: MIT Technology Review) [\[Return comment\]](#)

- **Bitcoin is a red herring in the discussion of blockchain energy efficiency**

(Source: Brink News) [\[Return comment\]](#)

- **Bitcoin's high energy consumption is a concern**

(Source: The Conversation, 7 Nov 2018) [\[Return comment\]](#)

"Bitcoin recently turned ten years old. In that time, it has proved revolutionary because it ignores the need for modern money's institutions to verify payments. Instead, Bitcoin relies on cryptographic techniques to prove identity and authenticity."

- **Blockchain in energy: Evolution or revolution?**

(Source: World Energy) [\[Return comment\]](#)

- **Blockchain tech is taking on renewable energy trading in one country**

(Source: CNBC, 7 Nov 2018) [\[Return comment\]](#)

"Blockchain, the technology underpinning cryptocurrency bitcoin, has been recommended and theorized for uses across a broad spectrum of sectors and countries. Singapore is putting the tech to work in reshaping its energy industry."

- **Blockchain technology to give consumers more control over their energy usage**

(Source: TD World, 6 Nov 2018) [\[Return comment\]](#)

"Delta, a European Union research and innovation project, will be showcasing its main technology at European Utility Week in Vienna in November 2018. One of only 24 EU-funded projects to be invited to exhibit at the European Projects Zone at European Utility Week 2018, Delta is developing a new IT system to increase participation in demand response around Europe for both commercial and residential prosumers and consumers."

- **Collaboration to build blockchain tool for us renewable energy market**

(Source: TD World, 25 Oct 2018) [\[Return comment\]](#)

"Energy Web Foundation (EWF) and PJM Environmental Information Services, Inc. (PJM-EIS) have announced a collaboration focused on developing and testing a market-wide reference implementation of Energy Web Origin for the Generation Attribute Tracking System (GATS) administered by PJM-EIS."

- **Dollar for dollar, crafting cryptocurrency sucks up 'more energy' than mining gold, copper, etc**

(Source: The Register, 7 Nov 2018) [\[Return comment\]](#)

"Maybe time to put down that Bitcoin-mining rig and pick up that spade? Cryptocurrencies require as much, if not more, energy to mine as precious metals like copper, gold or platinum, according to some latest calculations."

- **How blockchain is impacting global demand response programmes**
(Source: Smart Energy) [\[Return comment\]](#)
- **Nevada considers blockchain to track renewable credits**
(Source: Utility Dive, Oct 2018) [\[Return comment\]](#)
“The Public Utilities Commission of Nevada opened a docket in September to consider how blockchain technologies could help in tracking “portfolio energy credits” (PECs) while considering how to replace the current system for renewable energy producers to earn and sell credits to electric utilities.”
- **Mining Bitcoin is 3 times more expensive than mining gold**
(Source: Market Watch, 6 Nov 2018) [\[Return comment\]](#)
“The amount of energy required to mine bitcoin, or digital gold as some proponents like to call it, is considerably higher than that of physical gold, a research study has found. In a research paper for The Nature International Journal of Science a research engineer found that the cost to mine \$1 worth of bitcoin BTCUSD, is more than three times the cost to mine \$1 of gold and other precious metals.”
- **WEF: Blockchain could provide solutions for environmental challenges**
(Source: Environmental Leader) [\[Return comment\]](#)

Food and agriculture

[\[Back to Quick links\]](#)

- **Chickens and eggs: Retailer Carrefour adopts blockchain to track fresh produce**
(Source: Reuters) [\[Return comment\]](#)
- **Four agricultural titans unite to implement blockchain into trade operations**
(Source: Coin Insider, 29 Oct 2018) [\[Return comment\]](#)
“A news release reveals plans for agricultural businesses, Archer Daniels Midland (ADM), Bunge Limited, Cargill incorporated and Louis Dreyfus Company (LDC) to utilize blockchain technology and digitize global agricultural shipping transactions.”
- **The agricultural supply chain can massively benefit from blockchain**
(Source: Forbes) [\[Return comment\]](#)
- **With Walmart’s veggie tracker, blockchain for supply chains will finally get real**
(Source: MIT Technology Review) [\[Return comment\]](#)

Government and public sector

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- **Applications of blockchain in the public sector**
(Source: Deloitte) [\[Return comment\]](#)
- **Could blockchain be the answer to stamping out corruption in the public sector?**
(Source: Business Live, 4 Nov 2018) [\[Return comment\]](#)
“As blockchain technology continues to gain prominence in the fintech industry, many industry players believe the technology could be key in the fight against corruption in the public sector. Every year, SA loses billions of rand due to corruption in public procurement.”
- **Deloitte to launch blockchain platform for government bodies**
(Source: Blocks Point, 11 Jun 2018) [\[Return comment\]](#)
“Deloitte is preparing to release a blockchain solution for managing identification data, according to a press release. The company has collaborated with Attest, an ID digital identity management company.”

Health

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- **7 Start-ups bringing blockchain to healthcare**
(Source: CB Insights) [\[Return comment\]](#)
- **Artificial intelligence and blockchain: An easy pill to swallow**
(Source: Healthcare IT, 3 Oct 2018) [\[Return comment\]](#)
“Artificial intelligence, extended reality and blockchain are some of the most talked about emerging digital technologies. While not typically associated with the healthcare industry, these technologies are having a big impact on the supply chain of pharmaceutical products”

- **Blackberry unveils a blockchain platform for healthcare services**
(Source: Coin Speaker) *[Return comment]*
- **Blockchain in healthcare**
(Source: CB Insights) *[Return comment]*
- **Blockchain in healthcare: Huge promise, but largely unproven**
(Source: Healthcare Dive) *[Return comment]*
- **Blockchain use in life science industry has tripled in scale since last year**
(Source: Bit Novosti) *[Return comment]*
- **Blockchain's potential for a better healthcare system**
(Source: BoozAllen) *[Return comment]*
- **BlueOcean Ventures II's blockchain-powered VC fund targets medical innovation**
(Source: Venture Beat) *[Return comment]*
- **Can artificial intelligence 'bank on' blockchain to power science and medicine's future progress?**
(Source: Forbes, 28 Oct 2018) *[Return comment]*
"The last few decades have witnessed innovations in modern medicine, science and technology at a much faster rate than at any time before in history. A large portion of the credit goes to computers, for helping us solve problems more efficiently and therefore at a faster pace."
- **CDC IT leader details progress on developing an EHR blockchain**
(Source: Healthcare Informatics) *[Return comment]*
- **Change healthcare deploys blockchain network on Amazon Web Services**
(Source: Healthcare Dive) *[Return comment]*
- **Farmatrust blockchain project joins forces with government of Mongolia to eradicate fake drugs**
(Source: ZY Crypto, 14 Nov 2018) *[Return comment]*
"FarmaTrust has announced its alliance with Mongolian authorities to fight against counterfeit drugs with its highly functional blockchain-based tracking solution. FarmaTrust Blockchain Project Joins Forces with Government of Mongolia to Eradicate Fake Drugs FarmaTrust, a formidable force in pharmaceutical supply chain security ecosystem is collaborating with the government of Mongolia to launch its debut distributed ledger technology powered track and trace project in the pharmaceutical industry, to eliminate drug counterfeiting in the region."
- **Health tech firm plans to consolidate medical records on blockchain**
(Source: Newsbytes, 17 Oct 2018) *[Return comment]*
"Individuals, doctors, and insurance companies may soon be able to access and track their and their patients' medical histories in an app via a single, consolidated, and secure blockchain technology-based system."
- **Healthcare blockchain efficiency model**
(Source: Forbes, 22 Oct 2018) *[Return comment]*
" 'I don't want to take an ambulance, because it's too expensive'. In times of medical emergency, an ambulance ride of just a few miles can cost thousands of dollars, and a lot of it may not be covered by insurance."
- **High costs, headaches and hidden money pits of healthcare combated by blockchain**
(Source: Forbes, 7 Nov 2018) *[Return comment]*
"Few things in life are less empowering than being ill. Not only is there physical discomfort, but there is the unsettling uncertainty of if, when or how we will get well. Thankfully, it is less and less a question of whether a treatment or specialist for the condition exists."
- **How blockchain-enabled analytics can be used for insights in healthcare**
(Source: Analytics India Magazine, 6 Oct 2018) *[Return comment]*
"The innovation and upsurge of technology has equipped us with answers to many personal needs and even beyond. An important aspect of human life focusses around health. Have you ever wondered that how helpful it would be if we could get an advanced alert for upcoming probable health issues?"
- **How artificial intelligence, blockchain technologies are enhancing patient care**
(Source: eHealth) *[Return comment]*

- **How blockchain is transforming health care**

(Source: Forbes, 7 Nov 2018) [\[Return comment\]](#)

“Originally developed for cryptocurrency in 2008, blockchain allows a distributed network of computers to keep a tamper-proof digital ledger. The technology, however, is useful whenever collaborating parties have competing interests that require a third-party guarantor.”

- **New blockchain ledger will let you sell personal healthcare data**

(Source: Computer World) [\[Return comment\]](#)

- **Patientsphere uses artificial intelligence and blockchain to personalize treatment plans**

(Source: Venture Beat, 25 Oct 2018) [\[Return comment\]](#)

“Artificial intelligence (AI) can — and already has — improved the health outcomes of patients around the globe. Google earlier this month achieved 99% accuracy in metastatic breast care detection with an AI system. Nvidia recently debuted a model that generates synthetic scans of brain cancer from whole cloth.”

- **Private blockchain, explained: What it is, what it isn't and how to manage your HIPAA expectations**

(Source: Fierce Healthcare) [\[Return comment\]](#)

- **Protecting medical records with blockchain**

(Source: Digital Journal) [\[Return comment\]](#)

- **Still bullish on blockchain: Experts give a lay of the land**

(Source: Healthcare Informatics, 25 Oct 2018) [\[Return comment\]](#)

“At a healthcare modernization event this week, health IT thought leaders weighed in on where things stand regarding blockchain's push into healthcare. Although there are still more questions than answers regarding the impact that blockchain technology will have on healthcare, many health IT experts remain convinced of its promise.”

- **Take a look at the latest medical technology in the NHS**

(Source: Forbes, Oct 2018) [\[Return comment\]](#)

“Not a day goes by without another headline bemoaning the lack of finance and resources that the NHS currently suffers from, but in a far corner of London a new accelerator scheme is trying to address that.”

- **US law might speed up blockchain adoption in pharma industry**

(Source: Crypto Vest) [\[Return comment\]](#)

Identity, trust and consensus

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- **Blockchain is how we can protect our privacy in a world of ubiquitous surveillance**

(Source: Entrepreneur) [\[Return comment\]](#)

- **Blockchain solves for trust, not data management**

(Source: Forbes, 2 Nov 2018) [\[Return comment\]](#)

“Blockchain is a misunderstood technology that I see directed toward solving the wrong kinds of problems. According to a 2018 Gartner study, only 1% of CIOs report that their companies tried to implement blockchain.”

- **Blockchain-powered digital certificates is the way forward**

(Source: The Hindu Business Line, 27 Oct 2018) [\[Return comment\]](#)

“Technology will help curb fake degree certificate menace: US-based entrepreneur Shiva Kintali Blockchain technology can address fake degree certificates problem”

- **Brave browser is using civic's blockchain platform to verify publishers**

(Source: Coin Desk) [\[Return comment\]](#)

- **Building shared digital identity using blockchain technology**

(Source: Helpnet Security, 25 Oct 2018) [\[Return comment\]](#)

“In an ideal future state, every consumer would have a strongly proofed, government-issued digital identity that could be shared with anyone.”

- **China drafts regulation to stamp out blockchain anonymity**
(Source: The Next Web) *[Return comment]*
“After killing all legitimate cryptocurrency businesses in the country, Chinese authorities are now turning their attention to other blockchain service providers. The country’s apex internet regulator, Cyberspace Administration of China (CAC), released a draft policy that will require all companies to collect their users’ real names and national identification card numbers before offering them any blockchain related service.”
- **Deloitte announces plans to place digital identity on the blockchain**
(Source: Crypto Disrupt, 7 Nov 2018) *[Return comment]*
“Deloitte announced a partnership with Attest Inc to facilitate government digital identity on the blockchain. Users will be able to store government and corporate identities on a distributed ledger.”
- **Microsoft creating a blockchain-based platform for storing identity**
(Source: Koin Alert) *[Return comment]*
- **What CFOs need to know about blockchain—and trust**
(Source: Financial Executives, 24 Oct 2018) *[Return comment]*
“Many finance executives say a lack of trust among users is the number-one barrier to blockchain adoption”
- **What is consensus? (blockchain report excerpt)**
(Source: Clean Technica) *[Return comment]*
- **Why is it so hard to trust a blockchain?**
(Source: PWC StrategyBusiness) *[Return comment]*

Insurance

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- **5 Insurance giants working on blockchain solutions**
(Source: CB Insights) *[Return comment]*
- **Blockchain enables new business models, value creation for insurers**
(Source: Insurance Innovation Reporter, 15 Oct 2018) *[Return comment]*
“The history of platform business models reveals an opportunity for blockchain to support their further evolution, including in the insurance business”
- **IBM expands blockchain partnership with insurance broker Marsh**
(Source: Coin Desk) *[Return comment]*

Intellectual property

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- **IBM’s blockchain patents: From food-tracking and shipping to internet of things and security solutions**
(Source: Coin Telegraph, Oct 2018) *[Return comment]*
“The adoption of blockchain technology is slowly taking shape across a multitude of industries. At the forefront of the amalgamation of payment systems and logistics is US tech giant International Business Machines Corporation (IBM), which has established itself as a leader in terms of blockchain-based products and offerings.”
- **Sony explores the blockchain for DRM, intellectual property protection tech**
(Source: ZD Net, Oct 2018) *[Return comment]*
“This device is unable to play the requested video. Sony has announced the development of a digital rights management (DRM) platform based on the blockchain. The Minato, Tokyo-based firm said that the DRM solution will focus on the protection of digital content, including electronic textbooks, music, films, VR content and e-books.”
- **The value of blockchain for securing 3D printed intellectual property**
(Source: 3D Print) *[Return comment]*
- **What would a blockchain patent war look like ?**
(Source: TechCrunch) *[Return comment]*

Internet of things (IoT)

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- **Internet of things (IoT) World Congress on blockchain and internet of things**
(Source: Augusta Free Press) [\[Return comment\]](#)

Logistics and supply chain

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- **Bitcoin blockchain is used for cargo transportation in USA**
(Source: Blocks Point, 26 Oct 2018) [\[Return comment\]](#)
“DexFreight start-up has successfully delivered products on trucks using blockchain and Bitcoin smart contracts in the United States, Truck News reports. About 2.5 tons of frozen products were delivered en route from Medley to Sunrise in Florida.”
- **Blockchain: A new frontier in supply chain management**
(Source: JD Supra) [\[Return comment\]](#)
- **Blockchain market in supply chain industry will grow at 78% between 2019-2023**
(Source: Blokt, 1 Nov 2018) [\[Return comment\]](#)
“One of the most prolific applications of blockchain is expected to be in the supply chain industry. A new research report from Technavio now suggests that blockchains in the supply chain industry will grow at a combined annual growth rate of 78.39 percent between 2019 and 2023.”
- **Capgemini report suggests blockchain is real for many leading supply chain managers**
(Source: Logistics Management, 25 Oct 2018) [\[Return comment\]](#)
- **Challenging times for IBM/Maersk blockchain shipping initiative?**
(Source: Pymnts, 26 Oct 2018) [\[Return comment\]](#)
“Might there be challenging times afoot for TradeLens, the distributed ledger technology platform effort geared toward supply chains and backed by IBM and Maersk? CoinDesk reports that the duo is “wrestling” with a problem that can bedevil competitors working together – a notion that the site said is ‘especially tricky when one of those rivals, in this case Maersk, owns the team’ ”
- **Eximchain launches global supply chain management platform for blockchain**
(Source: SCMR) [\[Return comment\]](#)
- **FOMO fuels blockchain's potential to change supply chain**
(Source: Fleet Owner) [\[Return comment\]](#)
- **Only 15% using blockchain to mitigate financial crime in supply chain**
(Source: MHL News, 5 Nov 2018) [\[Return comment\]](#)
- **Using blockchain technology to fix the trucking industry [video]**
(Source: Finance) [\[Return comment\]](#)

Media, marketing and advertising

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- **All four major ad holding companies unite around blockchain**
(Source: Forbes, 8 Nov 2018) [\[Return comment\]](#)
“Blockchain is so powerful, it can get lambs to lie down with lions. Maybe not actual lambs and actual lions, but when the four largest ad holding companies on the planet—IPG, Publicis, Omnicom and WPP—get together behind a single initiative, and companies like IBM, Meredith and Tegna jump in with them, you know that something big is going on.”
- **How blockchain can help marketers build better relationships with their customers**
(Source: Harvard Business Review) [\[Return comment\]](#)
- **An “introduction to blockchain for media companies” to be provided by online event from MFM**
(Source: Multi Channel) [\[Return comment\]](#)
- **How much will blockchain really affect digital marketing?**
(Source: Forbes) [\[Return comment\]](#)
- **Why advertisers cannot ignore blockchain technology**
(Source: Forbes) [\[Return comment\]](#)

Manufacturing[\[Back to Quick links\]](#)

- **How blockchain can improve manufacturing in 2019**

(Source: Forbes, 28 Oct 2018) [\[Return comment\]](#)

“The business value-add of blockchain will grow to slightly more than \$176 billion by 2025, then exceed \$3.1 trillion by 2030 according to Gartner. Typical product recalls cost \$8M, and many could be averted with improved track-and-traceability enabled by blockchain.”

National policies[\[Back to Quick links\]](#)

- **Africa's blockchain potential untapped, but how to implement it?**

(Source: Forbes, 23 Oct 2018) [\[Return comment\]](#)

“One needs to look back at why, and when, Bitcoin and blockchain came into being. It was 2008, post the latest global financial crisis, and there was a feeling that a better system would be needed. One where banks are not fully in control.”

- **After becoming the blockchain island, Malta announces it's formulating a national artificial intelligence strategy**

(Source: Forbes, 1 Nov 2018) [\[Return comment\]](#)

“The Maltese Parliament recently passed three laws establishing the regulatory framework for blockchain, cryptocurrency and distributed ledger technology. Malta has become known as the “World’s Blockchain Island,” quickly attracting interest from thousands in the crypto community to set up shop on the tiny island that is part of the European Union”

- **After \$700 000 in research, Australian digital transformation agency determines blockchain not yet outperforming existing technology**

(Source: Crowdfund Insider, 25 Oct 2018) [\[Return comment\]](#)

“After spending \$700 000 Australian dollars investigating the industrial potential of blockchain, Australia’s Digital Transformation Agency (DTA) has determined that current versions of the tech are “interesting” but in no way better than other systems, ZDNet reports.”

- **Australia's 'Assistance and Access' Bill will change blockchain technology as we know it**

(Source: ZY Crypto) [\[Return comment\]](#)

- **Blockchain adoption hotting up in Australia**

(Source: Computer Weekly) [\[Return comment\]](#)

- **Blockchain could help solve Argentina’s financial crisis**

(Source: Venture Beat) [\[Return comment\]](#)

- **Blockchain tech company pitches futuristic ‘innovation park’ in Nevada**

(Source: Smart Cities Dive, 5 Nov 2018) [\[Return comment\]](#)

“Blockchains LLC founder announced plans to develop a city in Nevada that would be centered around blockchain technology. The 60,000-acre site has been dubbed “Innovation Park” In a keynote speech the Governor said the city would be “a series of different projects to highlight the power of the public blockchain” and would include houses, apartments, schools, banks, stores and more. Innovation Park will be anchored by a 1,000-acre campus where companies and start-ups can test new applications of blockchain, artificial intelligence, nanotechnology and 3D printing”

- **China’s major blockchain consortium launches revolutionary coinless blockchain platform**

(Source: Coin Speaker, 24 Oct 2018) [\[Return comment\]](#)

“As it has been revealed, the Chinese Financial Blockchain Shenzhen Consortium (also known as FISCO) that is led by tech giant Tencent, multinational telecommunication company Huawei, WeBank and Shenzhen Securities Communication, is ready to present its innovative development.”

- **How the Netherlands is blazing a trail through the blockchain scene**

(Source: Forbes) [\[Return comment\]](#)

“Hanson Robotics, with their humanoid robot Sophia, wants AI networks to help each other”

- **Lack of collaboration hinders European blockchain adoption**

(Source: TechRadar) [\[Return comment\]](#)

- **Tanzanian authorities call on scientists for cooperation in blockchain**
(Source: Blocks Point, 29 Oct 2018) *[Return comment]*
“The government of Tanzania is ready to invite scientists and researchers for cooperation in order to study blockchain and create favourable regulatory standards for this technology”
- **Thailand is becoming a critical country for blockchain**
(Source: TechCrunch) *[Return comment]*
- **Trade war or not, from artificial intelligence to blockchain and new energy vehicles, China is on the front row for the Fourth Industrial Revolution**
(Source: South China Morning Post) *[Return comment]*
- **UK telecom regulator wins grant to study blockchain**
(Source: Coin Desk) *[Return comment]*

Smart cities and real estate

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- **Breaking into blockchain: The emerging technology revolutionizing city operations**
(Source: Smart Cities Dive) *[Return comment]*
- **For a smart city to be really ‘smart’, blockchain has to be its brain — and soul**
(Source: Inc42) *[Return comment]*
- **Government explores blockchain to make buying and selling property easier and cheaper**
(Source: Computer Weekly) *[Return comment]*
- **Is blockchain the breakthrough smart cities need?**
(Source: Arabian Business) *[Return comment]*
- **NSW land registry to trial blockchain for conveyancing**
(Source: ZD Net, Oct 2018) *[Return comment]*
“The New South Wales government is looking to make property conveyancing electronic, turning to distributed ledger technology as a means to make the practice cheaper, more reliable, and more secure. The NSW Land Registry Services will be conducting a proof of concept with Stockholm-based ChromaWay, built on the start-up’s open source technology.”
- **Top blockchain applications making waves in commercial real estate**
(Source: Data Meets Media) *[Return comment]*
- **UK takes another step toward blockchain property register with R3**
(Source: Artificial Lawyer) *[Return comment]*
- **Using the blockchain to get traffic moving in smart cities**
(Source: IT Proportal) *[Return comment]*
- **What role can blockchain really play in smart cities?**
(Source: Brink News, 23 Oct 2018) *[Return comment]*
“Blockchain can do some amazing things. It pushes the frontier of how we exchange and use data. It opens up new possibilities for how we do business and how we respond to exceptions in a normal process flow”
- **When blockchain meets real-estate**
(Source: Smart Cities World) *[Return comment]*

Smart contracts and audits

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- **Blockchain easy-button alert: Say hello to automated security audits**
(Source: Silicon Angle, 19 Oct 2018) *[Return comment]*
“The goal is to basically make it very easy for developers to understand the state and health of the smart contract, and then they can go find consultants and experts to fix those vulnerabilities and issues”
- **How smart contracts using blockchain really work**
(Source: Blocks Decoded) *[Return comment]*
- **Smart contract business drivers: Trusted contract writers, bad contracts**
(Source: Clean Technica, 3 Nov 2018) *[Return comment]*

- **Smart contract technical underpinnings**

(Source: Clean Technica) [\[Return comment\]](#)

- **Smart contracts for drones using blockchain**

(Source: Drone Below, 19 Oct 2018) [\[Return comment\]](#)

“Since drones are in common use in day to day living in modern cities, it becomes imperative to implement some kind of universally acceptable authorization and traceability of unmanned drones for service deliveries.”

Start-ups and freelancing

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- **Binance introduces incubation program to further the growth of blockchain start-ups**

(Source: AMB Crypto, 25 Aug 2018) [\[Return comment\]](#)

Recently, Binance Labs, the famous cryptocurrency exchange platform, announced the start of an incubation program on Twitter. The move aims to develop early-stage blockchain start-ups by providing them with the best resources available to Binance According to Binance Lab’s official blog, the team has been making direct investments with an aim to support start-ups in bringing significant change to the entire ecosystem

- **There are an awful lot of blockchain start-ups, and most of them will fail**

(Source: Games Industry) [\[Return comment\]](#)

- **The problems with freelancing and how blockchain can help**

(Source: Forbes, 27 Oct 2018) [\[Return comment\]](#)

“It is probably safe to say that freelancing is one of the pillars of modern society. Many on-demand services would not exist if it was not for freelancers. Freelancing and on-demand services allow micromanagement of time and resources, which lead to tremendous savings.”

- **This is how you can get your blockchain start-up funded**

(Source: Forbes, 9 Nov 2018) [\[Return comment\]](#)

“With \$19 billion invested just last year in European start-ups that focus on artificial intelligence, blockchain and quantum computing, potentially there is a lot of funding out there for new companies. But how do you get funded?”

- **UK blockchain start-ups, who are you?**

(Source: Computer Weekly) [\[Return comment\]](#)

- **UK government-backed accelerator will sponsor blockchain start-ups**

(Source: Coin Desk, 24 Aug 2018) [\[Return comment\]](#)

Blockchain start-ups seeking to expand to the U.K. might find that now is a good time to do so In its most recent update for entrepreneurs wishing to set up businesses in the U.K., the Department for International Trade announced that Entrepreneur First (EF), a pre-seed investment company, is now also funding blockchain start-ups. EF is one of the government-recognized organizations that can endorse firms for entrepreneur visas

Tracking

[\[Back to Quick links\]](#)

- **DeBeers’ Tracr diamond industry blockchain traceability platform**

(Source: International Mining, 29 Oct 2018) [\[Return comment\]](#)

“Tracr, the end-to-end diamond industry blockchain traceability platform being developed by De Beers Group in collaboration with industry stakeholders, is pleased to announce that Alrosa has joined the platform’s pilot programme.”

- **IBM launches tool to help grocery stores track food on the blockchain**

(Source: The Next Web) [\[Return comment\]](#)

- **There are a lot of fish in the sea - blockchain could help track them**

(Source: Marketplace, 18 Oct 2018) [\[Return comment\]](#)

“Reporting and collecting data up and down the supply chain could determine whether seafood really is sustainably caught, processed and sold”

- **Walmart asks lettuce suppliers to trace products using blockchain**

(Source: CIO Dive) [\[Return comment\]](#)

Trade and commodities

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- **Blockchain technology coming to commodity markets**
(Source: Bloomberg) [\[Return comment\]](#)
- **Blockchain technology could reduce uncertainty in foreign trade**
(Source: Coin Telegraph) [\[Return comment\]](#)
- **IBM and Maersk announce Tradelens, leveraging a blockchain for global trade**
(Source: Distributed) [\[Return comment\]](#)
- **You can now trade oil and wheat on the blockchain, as commodities hit the platform**
(Source: Tech Republic) [\[Return comment\]](#)

Transport

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- **10 Applications for blockchain in connected car automotive**
(Source: Ignite Outsourcing) [\[Return comment\]](#)
- **Air Canada trialling blockchain system to reduce complexities and costs**
(Source: Crowdfund Insider, 25 Oct 2018) [\[Return comment\]](#)
“Traditionally, providing comprehensive travel packages to consumers across the globe can be a complex process involving numerous parties – both in a traveller’s country of origin and in destination areas.”
- **Air France-KLM teams with winding tree for blockchain-based travel solutions**
(Source: RTT News) [\[Return comment\]](#)
- **Airline tech in the Americas: Artificial intelligence, biometrics, blockchain and more**
(Source: Centre for Aviation) [\[Return comment\]](#)
- **Blockchain behind NSW digital driver licence play**
(Source: ZD Net) [\[Return comment\]](#)
- **Blockchain is priority technology for research among airlines and airports**
(Source: RTT News) [\[Return comment\]](#)
- **Blockchain on wheels: How tech can transform the transportation sector**
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World of work

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- **Artificial intelligence and blockchain to change nature of jobs says Indian prime minister**
(Source: Business World) [\[Return comment\]](#)
- **The 15 most in-demand blockchain jobs**
(Source: Tech Republic, 19 Oct 2018) [\[Return comment\]](#)
“While the technology remains in its infancy, more companies are seeking tech pros with the skills needed to advance their blockchain projects”

A selection of the emerging technologies continuously monitored by DeltaHedron®

Emerging technologies	Applications	Industries
3D Printing and scanning Artificial Intelligence (AI) and Machine Learning Artificial Reality (AR), Virtual Reality (VR) Automotive Autonomous, flying, hybrid, scooters Electric, petrol, diesel, hydrogen, battery Basic sciences Astronomy, biology, chemistry, physics Mathematics, statistics, geology Biotechnology Blockchain Cryptocurrencies Bots Chatbots, cobots Robotics and automation Biometrics, voice/facial recognition Computers and computing Quantum computing High Performance Computing Memory storage Data Big data, analytics, business intelligence Cybersecurity, data protection Data science Digital and ICT Mobile, cloud, wireless, wifi Broadband, 5G, VOIP Software, SaaS, APIs, digital twinning Drones Electronics and photonics Antennas, radar, lidar, LoRA, sonar Energy Batteries, storage, renewables Electric, fossil, oil/gas, nuclear, hydro Hydrogen, solar, wind, tidal Imaging Holograms, photography, video Internet of Things (IoT) Industrial, sensors, RFID Materials Building, chemicals, bio, graphene, nano Metals, metallurgy, plastics, self-healing Wearables	Asset management Protection, tracking Anti-poaching Cities and communities Real estate Smart cities Smart home, office, factory Customer experience Consumers, UX Digital identity Authentication, identification e-Privacy, GDPR Environment Carbon emissions Climate change, conservation Water, marine, oceans Fraud prevention Anti-counterfeiting Games, toys Geolocation, mapping Navigation, GPS, tracking Health Dental Digital health Diseases/medical conditions Health and safety Hospitals, homecare Mental health, psychology Pharma, medicine ICT Data centres Enterprise systems Phones, tablets, apps Internet, online, web Search Engine Optimisation Management/governance Software development Telecommunications Legal, IP and patenting Maintenance Marketing, branding Packaging Workflow X-as-a-Service (XaaS)	Aerospace Agriculture, food, agritech Animals, crops, plants, fisheries Arts and culture Built Environment, construction Constructechs, housing Facilities management Chemical, biochemical Defence Education Edtech and Corporate learning Higher education and schools Energy Engineering Entertainment, music Fashion, textiles Financial, banking, investment e-Payments Fintechs, insurtechs Insurance, actuarial Health, pharma, cosmetics ICT Logistics, procurement Supply chain Manufacturing Maritime, marine, oceans Shipping, ports Media, journalism, publishing Social media Mining and minerals Philanthropy, CSR Professions Accounting, Auditing Engineering, Health, Legal Public sector, digital government Retail Security and policing Service industries Sport, exercise, leisure Telecommunications Tourism, travel, hospitality Transport, infrastructure Air travel and airports Public transport, rail, road

Business impact and cross-cutting themes

Trends and future thinking Digital transformation Disruption Dynamics of technological change Societies and communities Generational impact World of work and employment Freelance, gig economy HR management, recruitment, training	Risk management Innovation management Business models/platforms Corporate culture Incubators/accelerators Science and techno parks R&D, technology transfer Ventures, startups and entrepreneurship	Leadership and management Change management Decision-making/support Ethics and values National and regional interest Competitiveness Economic impact Fourth Industrial Revolution Innovation systems/policy
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DeltaHedron® Ltd is a UK-based consulting firm with a global reach, specialising in the management of technological innovation. Our focus is on supporting our clients to assess and manage the strategic business impact, opportunities, risks and threats presented by emerging technologies and the dynamics of technological change.

“A company with an engineering soul, an innovation mindset and a business outlook”



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