

FUTURE NEWS

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IN THIS EDITION

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FIVE CITIES THAT ARE LEADING THE WAY IN URBAN INNOVATION

by Michael Totty

As part of Singapore's efforts to maximize scarce resources, these Supertree sculptures in a park collect rainwater.
PHOTO: JOHN S. LANDER/GETTY IMAGES



Cities are the future

In 2008, for the first time in history, more human beings lived in cities than in rural areas. The United Nations projects that by 2050 nearly two-thirds of the world's projected 9.7 billion people will be urban.

Some urban planners scratch their heads about how it's all going to work. As ever-denser, more populous cityscapes continue to emerge, the eternal struggle to balance growth and quality of life shows few signs of abating.

Yet some ideas that address these types of problems are in place already and gaining traction in a handful of cities, including a few that are right under our noses.

To find out what urban-development policies and experiments currently hold the most promise, we asked more than a dozen experts—urbanists, architects, planners—what cities they think are worth watching now.

Their choices were illuminating. While the world's megacities—Tokyo, Jakarta, Shanghai, New York City—get a lot of attention, for the most part the experts we asked picked cities a tier or two lower in size. None of the cities they highlighted, they thought, were doing everything right. But in all cases, the cities are taking some actions that the experts say demand our attention.

The five we ended up with aren't meant to be exclusive. A larger list could have included London, considered by many to be the world's most dynamic city, despite increasingly unaffordable housing. Seoul and Amsterdam, meanwhile, are among the leaders in putting "smart city" tools into the hands of their citizens.

With that in mind, here are five innovative cities that are worth watching.

SINGAPORE: Managing extremely limited resources

Most experts agree: In many ways, Singapore is a model of a successful, 21st-century city. It fosters business, promotes education and maintains a government largely free of corruption, though it also places strict bounds on personal behavior. But what deserves the most attention is how it manages its severely limited resources, a situation that cities around the globe will increasingly face.

The island city-state depends on neighbouring Malaysia for much of its water. It imports 90% of its food and relies in part on a large group of non-permanent residents—about 30% of the population—to maintain economic growth. It also has to find ways to house its 5.5 million inhabitants, while keeping traffic moving in a dense yet bustling city that covers roughly the same area as New York City.

Singapore is “a city innovating under constraint,” says Edward Glaeser, a professor of economics at Harvard University. “You have a limited amount of land—you have to make sure you’re not wasting it.”

Take traffic. The city was a pioneer in “congestion pricing,” charging motorists for driving into the central business district during morning rush hour. A quota system restricts the number of new registered vehicles. Going forward, the city wants to require all vehicles to have a satellite-linked device that can calculate exact driving distances and make it possible to adjust tolls depending on traffic and the time of day.

Then there is water. The growing need for clean water will be among the biggest challenges this century, and Singapore is trying to squeeze more use from limited supplies. Two desalination plants can produce about 100 million gallons a day from seawater, about a quarter of the city’s needs. Singapore also looks to the sky: About two-thirds of the land surface funnels rainwater to be treated for drinking, and high-rises use it for flushing toilets. Changi Airport—frequently ranked among the world’s best—collects rainfall from runways to water the plants in the airport nursery and irrigate outdoor landscaping.

Singapore also has one of the world’s most ambitious wastewater-reuse systems. Four water plants using advanced-membrane filters and ultraviolet light as a disinfectant produce water that Singapore’s public-water authority says is clean enough to drink. However, the recycled water is mainly used for air-conditioning and for industry, including semiconductor plants that require water even purer than drinking water.

HOUSTON: Thriving but affordable



Pro-growth policies and light regulation, especially the lack of traditional zoning, make it easier and faster to build—and help keep housing more affordable for middle-income families than it is in coastal cities.
PHOTO:ISTOCKPHOTO/
GETTY IMAGES

Many successful cities—most notably, London and San Francisco—have a glitch in their operating systems: Though they are growing rapidly, too many people are finding they can’t afford to live there.

Not Houston. From 2010 to 2014, the Texas city added more than 140,000 people, a 6.7% increase and second only to New York in the U.S. But the difference between Houston and other high-growth cities is that it has expanded its housing stock to accommodate its new residents. In roughly the same period, the Houston metro area issued construction permits for 189,634 new units, the most in the nation. It is not surprising, then, that more than 60% of homes in the larger Houston metro area are

considered affordable for median-income families, according to the National Home Builders Association, compared with about 15% in the Los Angeles area.

Houston has “shown a capacity to grow without the kind of massive real-estate inflation that makes settling into places like New York, San Francisco, Boston, as well as London, all but impossible for middle-class families,” says Joel Kotkin, a fellow in urban studies at Chapman University in Orange, Calif., and executive director of the Houston-based Center for Opportunity Urbanism.

Many factors contributed to the recent growth spurt: Houston is the hub of the recently booming oil industry, which is now going through a painful bust. It boasts a nationally recognized medical center and is home to a thriving port. But affordable housing also contributed, Mr. Kotkin and others say, thanks to pro-growth policies and a light regulatory touch, especially the lack of traditional zoning.

No zoning makes it easier and faster to build, especially in response to changing economic conditions. A developer can avoid a lengthy and expensive rezoning process to build a town home complex in a declining neighbourhood of aging single-family homes. It might have to upgrade sewer lines and streets, but development costs are still low compared with other places. Although prices have risen some as builders replace older homes with nicer housing, the city stays affordable because so many new homes can quickly come on the market to keep up with demand.

The lack of zoning “actually does give the developer and design communities the ability to do things unlike anywhere else,” says Tim Cisneros, a Houston architect. Says Mr. Kotkin: “While many on the ocean coasts yearn to restore the 19th-century city, the Texas cities are creating a template for this century.”

MEDELLÍN, COLOMBIA: Making high-profile investments in poor districts



The former drug capital has sought to connect poor neighborhoods to the rest of the city. This system of outdoor escalators and plazas extends a quarter-mile up steep hills in one of Medellín's poorest districts. PHOTO: RAUL ARBOLEDA/AFP/GETTY IMAGES

Like many struggling cities, Medellín has looked to eye-catching building projects to revive its fortunes. What makes this Andean city different, however, is that it has placed some of its highest-profile projects in some of its poorest and previously crime-ridden neighbourhoods.

Known to many as Pablo Escobar's drug-and-murder capital of the 1980s, Medellín has undertaken a series of modernizations, such as a public-transit gondola system, the Metrocable, which serves poor mountainside neighbourhoods surrounding the city. Striking new public buildings include the Spain Library, a group of giant stone-like monoliths overlooking a quarter once infamous for drug violence.

Perhaps the most ambitious project has been a system of outdoor escalators built in one of the city's poorest districts. The escalators, which extend about a quarter-mile up steep hills and feature several small plazas, have won international innovation prizes. Tourism has grown, and the projects bring visitors to neighbourhoods they might otherwise avoid.

It is still too early to know whether such expensive investments—the escalators cost about \$6.7 million to build—will do much to improve the economic lives of those in poor neighbourhoods. But they have done much to reconnect severely disadvantaged areas, which helps the whole city, says Michael Mehaffy, executive director of the Portland, Ore.-based Sustasis Foundation, a research and education foundation focused on neighbourhood development. “It is in everyone’s economic interest to ensure that the poorer parts of the city are improving as well,” Mr. Mehaffy says.

DETROIT: Reducing red tape for neighborhood redevelopment



The city hopes to encourage startup businesses and small-scale redevelopment projects by creating ‘pink zones’ with a simpler approval process. PHOTO: SKIDMORE, OWINGS & MERRILL

Detroit, which emerged from bankruptcy in 2014, doesn’t have a lot of money for revitalizing all of its neglected areas. So it is trying something more radical: setting aside areas where normal development rules don’t apply.

Developers and designers complain that, like many cities, Detroit’s onerous and outdated rules make it too difficult to rebuild or repurpose long-neglected retail areas. To try to reduce those obstacles without a time-consuming and expensive rezoning process, the city is proposing a handful of “pink zones,” where red tape will be cut to help small developers and entrepreneurs open new businesses and revive aging commercial strips. The goal is not to eliminate zoning but to ease some of the constraints faced by new projects, like minimum-parking requirements or environmental-impact reports.

With a \$75,000 grant from the John S. and James L. Knight Foundation, the city planning department intends to recruit designers and planners to come up with a general framework for anyone who wants to start a new business or build in those areas. This might include pre-approved plans that can be used by builders to speed up a new development.

“You can create a great place, and you won’t have to go through months of red tape,” says Maurice Cox, Detroit’s planning director.

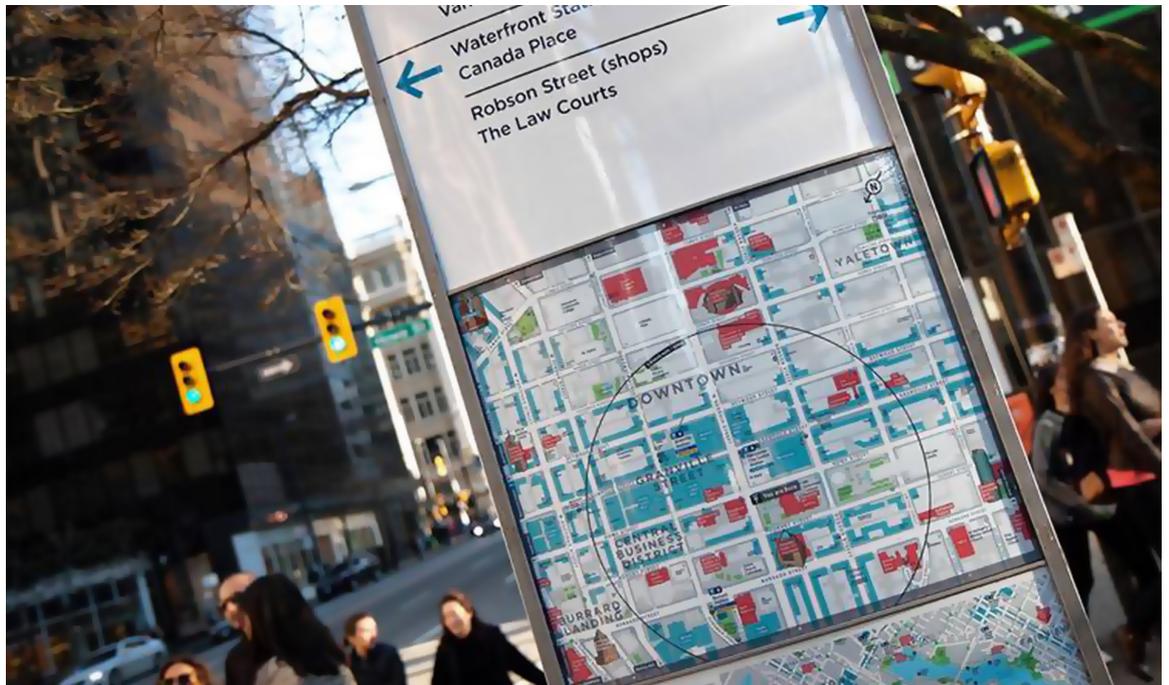
The idea of pink zones has been rumbling around planning circles for a few years. In the U.K., where it is called pink planning, it mainly aims to remove obstacles to new

residential developments. It is part of a larger effort called “lean urbanism” that aims to reduce the regulatory tangle that can hinder new business.

Andrés Duany, a planner and architect who in the 1980s helped popularize the New Urbanism idea of walkable neighbourhoods with a mix of housing, jobs and retail, is a leading U.S. proponent of lean urbanism. He says the idea came from all the young entrepreneurs and artists who in recent years were drawn to Detroit by cheap housing and space for launching new ventures. Detroit’s recent bankruptcy made that possible, he says, because the city wasn’t able to enforce its development rules and hinder the pioneering newcomers.

Detroit’s pink zones pilot program is the first test of this idea and is expected to serve as model for efforts to spur small redevelopment projects in other cities. “The city is ripe, the time is ripe,” says Douglas Kelbaugh, a professor of architecture and urban planning at the University of Michigan.

VANCOUVER, BRITISH COLUMBIA: Improving walkability



To enhance walkability, maps are oriented in the direction pedestrians are facing, not always on a north-south axis. PHOTO: CITY OF VANCOUVER

Everyone knows walking is good for you. Vancouver wants to make it the top transportation priority. The Canadian city may not be the most walkable city in the world, though it regularly makes the top 10. What makes it noteworthy are all the ways it is working to make the city easier, safer and more enjoyable to get around by foot.

Vancouver has made walking a key part of its public-health and “green city” goals. Roadways are being built and redesigned to favor pedestrians, for example, by installing pedestrian-controlled traffic signals on busy streets.

It also has changed development codes to make streets more attractive to walkers. The city’s zoning rules encourage density, which places more destinations within walking distance. Downtown buildings have storefronts and restaurants on the street level, while residential neighbourhoods feature townhouses with raised porches. “It is a big selling point,” says Lon LaClaire, the city’s acting transportation director. “People want to have good experiences walking around the city.”

The efforts are paying off. Residents walk exclusively for 26% of all trips within the city; the number is higher for those who live downtown, Mr. LaClaire says. Vehicle trips have declined citywide over the past 15 years, he adds, and the number of cars entering downtown has dropped 20% since 1996. As a result, Vancouver is ranked fifth by Walk Score, a unit of Redfin, which measures the walkability of more than 140 North American cities.

The original story appeared in the Wall Street Journal on 21 April 2016, and is reproduced with permission.



FUTURISTS IN ACTION

REPORT ON THE 50TH ANNIVERSARY WORLD FUTURE SOCIETY CONFERENCE

A small group of Australians made the long journey across the Pacific this month to attend the 50th anniversary conference of the World Future Society in Washington DC. This was a particularly interesting time to be in the USA, both because of the impact of recent shooting incidents there and because the major national conventions to determine the next candidates for election as President of the United States were being held.

Traditionally, technology has been a particular focus of the sessions at this conference, and this year there were also a number of technology sessions (and delegates could try out the latest virtual reality goggles and play with very realistic robotic pets) but the highlights this year were much more human than technology centred.

The best keynote presentation was by a performance poet (Sekou Andrews - <http://sekouandrews.com/>) who demonstrated just how powerful words can be when put together well. Over an hour and with no notes at all he told his 700+ audience just what a poet made of the future, why a poet thought the future was important, and made some poetic suggestions for inspiring ways to approach the future.



Other keynotes were given by the CEO of the American Humane Society who argued that we will never be really human until we respect all other life on the planet, and Kimbal Musk who creates gardens in schools (he has created more than 200 in the past 4 years) and restaurants in communities focusing on local produce. Kimbal is Elon Musk's brother, and is also on the board of many of his brother's companies, including Tesla. However, his passion is making local communities work better.

The CEO of the Macarthur Foundation announced their 100 and change project (100andchange.org) through which they will (every three years) give \$100 million dollars to a single organisation that convinces them they can use the money to solve a significant global problem.

We also heard from the CEO of Moon Express (Bob Richards - <http://www.moonexpress.com/>) who left us convinced that many people will be living and working on the moon before the end of this century.

There were an abundance of concurrent sessions to attend, and the Australian contingent got together at the end of each day to talk through what they had seen and heard. The future of work and jobs was a particularly common theme with perhaps five sessions ranging from career consultants to techno optimists helping audiences think through the implications of new technology on people at all stages of their career.

Helping governments increase their foresight capacity was another big theme – something that was particularly important for one of our members who works in the Australian military. It was in these sessions that just how many different countries were represented at the conference became evident. And, with the possible exception of Singapore, it seems that all governments around the world are finding it difficult to help their citizens navigate their way into the future. Even a panel of very experienced American academics who have been working at the highest level of the US government finished their session by saying “it’s messy folks”.

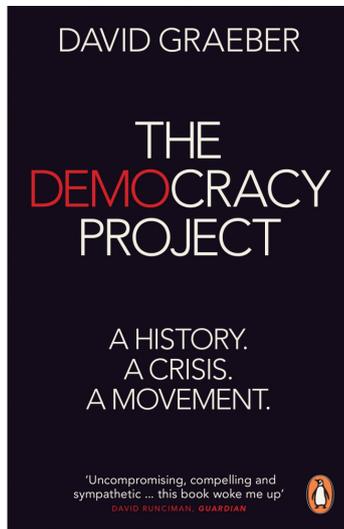
There were delegates from over 20 countries represented, and we were particularly encouraged to meet a group of young people from Taiwan who were all enrolled in different courses but all of whom were so impressed by the compulsory foresight units they had to study that they banded together to spend their university vacation at this conference. Personally, I was also impressed by the group of profoundly deaf participants who brought their own signer along and participated very fully in all aspects of the conference.

The theme for 2016 was “A Brighter Future is Possible” and I think all of us came away believing that this just might be the case.

To highlight this point, one of the presenters quoted Buckminster Fuller: “We are called to be architects of the future, not its victims.”

**The Democracy Project:
A History, A Crisis, A
Movement**

by David Graeber



“Those behind Occupy were generally well educated but indebted youth who struggled to find jobs.”

Book Review

by Charles Brass – Chair, futures foundation

Particularly vigilant readers may recall that when David Graeber's last book – “Debt – the first 5000 years” – was published in 2011 it was reviewed in these pages.

This is such a comprehensive and scholarly work that I assumed that Graeber must be a professional economist. Turns out he is an American born British anthropologist who combines a passion for any subject to which he turns his attention with a journalist's flair for helping his readers understand complex themes.

In this book – “The Democracy Project” – Graeber turns his attention to something in which he was deeply and personally involved – The Occupy Movement. Graeber became aware of the possibility of this revolutionary movement in America after he was invited by an editor to reflect on the so-called Arab Spring movements in the Middle East.

Graeber was no stranger to activist movements having been involved in student politics after his move to the United Kingdom when Yale University refused to renew his academic position (probably as a result of his activism in the USA). However, the combination of the editorial commission and the opportunity to tour the US promoting the book “Debt” awakened his interest, and provided him with the opportunity to connect with various protest movements in the USA.

Very quickly he realised that many of the same discontents that had surfaced in Egypt and other countries were present in the USA; and he attended many different gatherings in diverse parts of the country.

Slowly he became more and more involved, and found himself at the core of the group organising what would become Occupy Wall Street. In the first chapter of this book he describes his journey into the centre of the Occupy movement and explains where it came from and how it turned from the occupation of Zucatti Park in New York into a global movement.

But this book is much more than a chronology. Graeber's interest is in why the Occupy movement took off when so many others did not, and what its longer term consequences might be.

He devotes nearly a third of the book to asking why Occupy worked. He looks at the role of the media, but concludes that media reporting actually lagged the spread of Occupy across the US and into other countries.

Those behind Occupy were generally well educated but indebted youth who struggled to find jobs. These people, and the lower socio-economic classes in America generally had been shocked by the Global Financial Crisis in 2008 and appalled at the huge amounts of money that had been used to prop up the corporations (particularly financial institutions) that were believed to have caused the crisis in the first place. These are the factors to which Graeber attributes the spread of the movement, but they are not what he believes to be the real reasons for its success, and why he believes it has longer term ramifications.

Graeber is quite scathing of many protest movements. He argues they quickly disintegrate into internal power struggles or become co-opted by politics and the media, and in the process lose their edge.

Book Review

The Democracy Project: A History, A Crisis, A Movement
by David Graeber

“The Occupy movement did not succeed despite the anarchist element. It succeeded because of the anarchist element.”

He argues that the Occupy movement’s refusal to create visible leaders, or to issue practical lists of demands is what makes it so important. As he says: “...the movement did not succeed despite the anarchist element. It succeeded because of the anarchist element (p89 – emphasis in the original).

It is worth quoting an entire paragraph on this subject:

“For ‘small-a’ anarchists like myself – that is, the sort willing to work in broad coalitions as long as they work on horizontal principles – this is what we’d always dreamed of. For decades, the anarchist movement had been putting much of our creative energy into developing forms of egalitarian political process that actually work; forms of direct democracy that actually could operate within self-governing communities outside of any state. The whole project was based in a kind of faith that freedom was contagious. We all knew it was practically impossible to convince the average American that a truly democratic society was possible through rhetoric. But it was possible to show them. The experience of watching a group of a thousand, or two thousand, people making collective decisions without a leadership structure, motivated only by principle and solidarity, can change one’s most fundamental assumptions about what politics, or for that matter, human life, could actually be like (p80)”.

This is the essence of Graeber’s argument that the Occupy movement is much more significant than the occupation of a few public spaces, events that were largely broken up

by authorities quite quickly. He quotes someone he met sometime after the protestors were evicted in New York: “... you guys have already changed everything. For me anyway. I think we’re looking at the beginning of a transformation of American culture (p273)”. Graeber devotes the second half of the book to exploring why this might be the case. In chapters titled: “The mob begin to think and to reason” and “How change happens” he charts the specific details of the quite anarchic Occupy process and how these seem to resonate with a population that feels alienated and downtrodden.

His argument is quite compelling, which is a good thing because five years after Occupy Wall Street things don’t seem to me to have actually changed all that much. As I write this I have just listened to Philip Adams interview an academic who argues that the Arab Spring is dead, and it looks from the outside as though Occupy is dead.

Graeber is much more optimistic, arguing that a movement to challenge what passes for conventional wisdom has unstoppably begun. He argues that discussions about the future of jobs (whether there is a place for humans in the workplace at all?) and the role of money are continuing and will eventually change the world.

As he says: “I am less interested in working out what the detailed architecture of what a free society would be than in creating the conditions that would enable us to find out (p193)”, and he believes that the Occupy movement in 2012 was a significant step in creating these conditions.

Signals in the Noise

HOW BLOCKCHAIN TECHNOLOGY COULD CHANGE THE WORLD

by Bernard Marr

“One way people describe blockchain technology is the ‘internet of value’.”

There’s a lot of hype in the air about blockchain technology at the moment. A recent World Economic Forum report predicts that by 2025 10% of GDP will be stored on blockchains or blockchain related technology. This means it’s probably something which everyone involved in business should take notice of. However, there’s still a lack of understanding about what it is, and what it does.

This makes it difficult for the layman to assess whether it’s something worthy of their time and attention. And for a new technology to become mainstream, let alone change the world (as blockchain enthusiasts claim it will) it must find a fan base beyond the technically-minded.

One way people describe blockchain technology is the “internet of value”. I like this term but it deserves closer inspection.

We have become used to sharing information through a decentralized online platform (the internet). But when it comes to transferring value – for example money – we are usually forced to fall back on old fashioned, centralized financial establishments such as banks. Even online payment methods which have sprung into existence since the birth of the internet – Paypal being the most obvious example – generally require integration with a bank account or credit card to be useful.

Blockchain technology offers the intriguing possibility of eliminating this “middle man”. It does this by filling three important roles – recording transactions, establishing identity and establishing contracts – traditionally carried out by the financial services sector.

Worldwide, the financial services market is the largest sector of industry by market capitalization. If blockchain technology can replace just a fraction of that by enabling peer-to-peer transactions in other sectors then it clearly has the potential to create huge efficiencies.

The technology was initially pushed into the headlines several years ago thanks to the virtual currency Bitcoin. The value of one unit of the currency (which is underpinned by blockchain technology) rose from pennies to over £\$1,000 between 2011 and 2013, making a handful of early adopter enthusiasts very wealthy. Of course, this generated press interest. Since then, while Bitcoin’s value may have fallen and the currency established a more stable rate of growth, the buzz around the blockchain concept has intensified.

IBM, Microsoft and many others have announced services based on blockchain technology. Unsurprisingly, at the moment these are mainly aimed at financial services clients. It may represent the threat of extreme disruption to their industry – but of course they will still attempt to capitalize on it – that’s what they do, after all!

Last month Indian tech giant Infosys announced the launch of its own blockchain based service saying that they had received interest from almost every single one of their large customers. Major banks including Bank of America, Barclays and Morgan Stanley have also publicly spoken about their involvement and taken part in trials. In fact, 25 major banks last year announced their commitment to the R3 CEV initiative, designed to investigate blockchain’s potential use in finance.

Signals in the Noise

How Blockchain Technology
Could Change The World

“A blockchain allows anyone to send value anywhere in the world where the blockchain file can be accessed.”



Blockchain technology (source: Shutterstock)

Distributed ledger

But how exactly does it work? I think this is where it's worth returning to the phrase "internet of value". The regular internet allows anyone to publish information to anywhere in the world. A blockchain (and there are many individual ones – both public and private, just as with websites) allows anyone to send value anywhere in the world where the blockchain file can be accessed.

Each chain is essentially just an online database, stored in a distributed, peer-to-peer fashion among its users. Cryptography ensures that users can only edit the parts of the blockchain that they "own" – by possessing the private keys necessary to write to the file. It also ensures that everyone's copy of the distributed blockchain is kept in synch. In the most common model, distributed processing power, drawn from users of the blockchain, is used to fuel the cryptographic systems needed to do all of the leg work.

By giving private keys which you own to someone else, you effectively transfer the value of whatever is stored in that section of the blockchain. To give the easiest example – Bitcoin – keys can be used to access addresses which contain units of currency with financial value. This fills the first of three crucial roles – recording of transfers – traditionally carried out, at great expense, by the financial services industry.

It also fills the second key role – establishing trust and identity. No one can edit a blockchain without owning the corresponding keys. Cryptographic checks are carried out whenever anyone tries, and edits which are not verified across the network are not accepted. Of course, the keys – just like gold, or cash – can theoretically be stolen. However, a few bytes of computer code can usually be kept secure at relatively little expense.

Essentially this means that the work carried out by legions of staff in offices of banks, to record transactions, verify identities and prevent fraud, can now be carried out far more quickly and accurately by pure mathematics. Human fallibility is taken out of the equation.

Smart Contracts

In my opinion, though, it's the third crucial role – the establishing (and verifying) of contracts – where blockchain offers the most exciting possibilities. And it's also where the value of this type of technology becomes apparent outside of financial services. The ability to securely read and write to a distributed ledger, governed by mathematics and consensus rather than the whims of a centralized operator, has a whole heap of potential in just about every other industry.

Signals in the Noise

How Blockchain Technology
Could Change The World

“Devices in the home and across industry could automatically pay for the energy they use...”

The key here is that as well as something as basic as an indicator of value (as with Bitcoin), blockchains can be used to store any kind of digital information, including computer code. This code can be programmed to execute when two or more parties enter their keys – meaning that everyone agrees that a contract has been filled. It can also read from external data feeds – stock prices, weather reports, news headlines, or anything else that can be parsed by computer code – to create contracts which automatically “sign off” when stated conditions are filled. These are known as “smart contracts”.

Obviously the potential here is limitless. Applications could be developed which allow businesses to validate transfers based on delivery of service – for example a certain number of buying orders would signal to the blockchain-based smart contract that conditions had been filled for an invoice to be paid. The payment could then be made automatically through a blockchain based payment system. App ecosystems are already evolving, based around platforms such as Ethereum which aim to give businesses the toolsets necessary to get involved.

One theory even suggests that blockchain tech will provide the value “fuel” for the Internet of Things. Devices in the home and across industry could automatically pay for the energy they use by writing to the relevant blockchain, creating a transfer of value based on the precise usage of the device.

One project involves the creation of “smart” local power grids based on distributed blockchain technology. Of particular use in remote communities, such systems would allow the distribution, metering and billing of electricity to be administered within the community itself, rather than being reliant on external multinational power and finance institutions.

Another, ascribe aims to use blockchain tech to solve intellectual property issues in the digital age. Blockchains can be used to create a permanent or transferable link between the owner and a piece of IP, handle licensing issues, and even create “limited editions” of digital information, securely limiting the amount of times a piece of information (for example an artwork) can be displayed, shared or copied.

There are, as I previously said, an almost limitless number of applications for the technology. Fraud-resistant voting systems to be put in place, where the owner of one private key is assigned one vote, and no third party referee is necessary. Censorship-resistant distribution of information. Decentralized reputation and recommendation engines, provably free of interference from intermediaries such as moderators or advertisers.

In my opinion, blockchain technology looks set to be one of the most impactful developments on the horizon. I often find myself writing about “buzzwords” – Big Data, machine learning, predictive analytic – and now undoubtedly “blockchain” will join that list. But remember that the word “internet” was a buzzword, too, not so long ago in objective terms (although it seems like another lifetime!). The fact is that with all these concepts, while there may be a lot of hype around them, the potential they offer for change is just too big to overlook

Bernard Marr is a best-selling author & keynote speaker. His new book: ‘Big Data in Practice: How 45 Successful Companies Used Big Data Analytics to Deliver Extraordinary Results’

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