

Automating trust in citizen services



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TECHNOLOGY is changing the way governments around the world engage with their citizens. According to PwC's 21st CEO Survey 2018, the world will increasingly require new metrics for measuring prosperity. The traditional way of measuring prosperity through GDP growth or similar financial parameters should evolve into a process involving a multidimensional set of metrics, such as quality of life. Emerging technologies are going to play a significant role in establishing such measurable systems, building trust in the systems, and solving some of the important problems of society.

While government-to-citizen (G2C) services are getting rebuilt with the help of information technology, a lack of trust and regulatory uncertainty remain two strong hindrances to fully realising the benefits of technology. Newer technologies like blockchain and artificial intelligence (AI) have the potential to solve some of these issues by automating trust in citizen service delivery.

The budget speech of the finance minister of Bangladesh for the fiscal year of 2019-20 has emphasised the importance of blockchain. In fact, in his speech, the finance minister mentioned the government's plan to start experimental use of blockchain technology, which "is becoming an inseparable and secure medium of global information exchanges", in the coming year.

This is indeed a significant step

forward. Such a statement in the budget speech demonstrates the government's eagerness to keep pace with global technological advancements. Quite a few governments around the world have started experimenting with and implementing blockchain technology to deliver citizen services effectively. In countries like India, state and central government bodies have been working to adopt blockchain technology for the last couple of years. One state government in India has already started using blockchain technology to deliver citizen services effectively. With the government of Bangladesh laying emphasis on this technology, the country has also begun to work towards realising its potential.

Blockchain is set to disrupt both industries and citizen services alike. For one, it can automate the building of much-needed trust between the government and citizens. Also, it can increase the speed of service delivery to citizens. For any government, it can become a powerful tool to manage all kinds of registries, identities, and service delivery chains.

Blockchain was first applied in the financial services industry. Today, blockchain technology is considered disruptive and impactful across industries. In PwC's Global Blockchain Survey 2018, 600 executives from 15 countries were asked about their work with blockchain technology. About 84 percent said that their organisations had at least some involvement with this technology.

The use of blockchain can not only establish trust but also automate it by combining the Internet of things (IoT) and AI. Trust is automatically built into such a system. The system repeatedly yields the desired outcome without any manual intervention. IoT helps gather data from various sources through sensors, while AI helps in generating meaningful insights and in better decision making.

Automating trust is one of the

five emerging themes that have been identified by PwC as the next set of emerging themes based on eight emerging technologies. The emerging technologies are maturing fast, and they need to be deployed simultaneously to solve some of the larger problems of society.

a large number of intermediaries get involved across major activities of service delivery, with significant human intervention. Human intervention and centralised processes result in disparate systems, with power being concentrated in the hands of a few individuals, leading

governmental institutions to solve long-standing problems across public sector organisations.

Blockchain has increasingly received attention as a means to ensure regulatory monitoring, compliance and reporting for greater transparency in existing

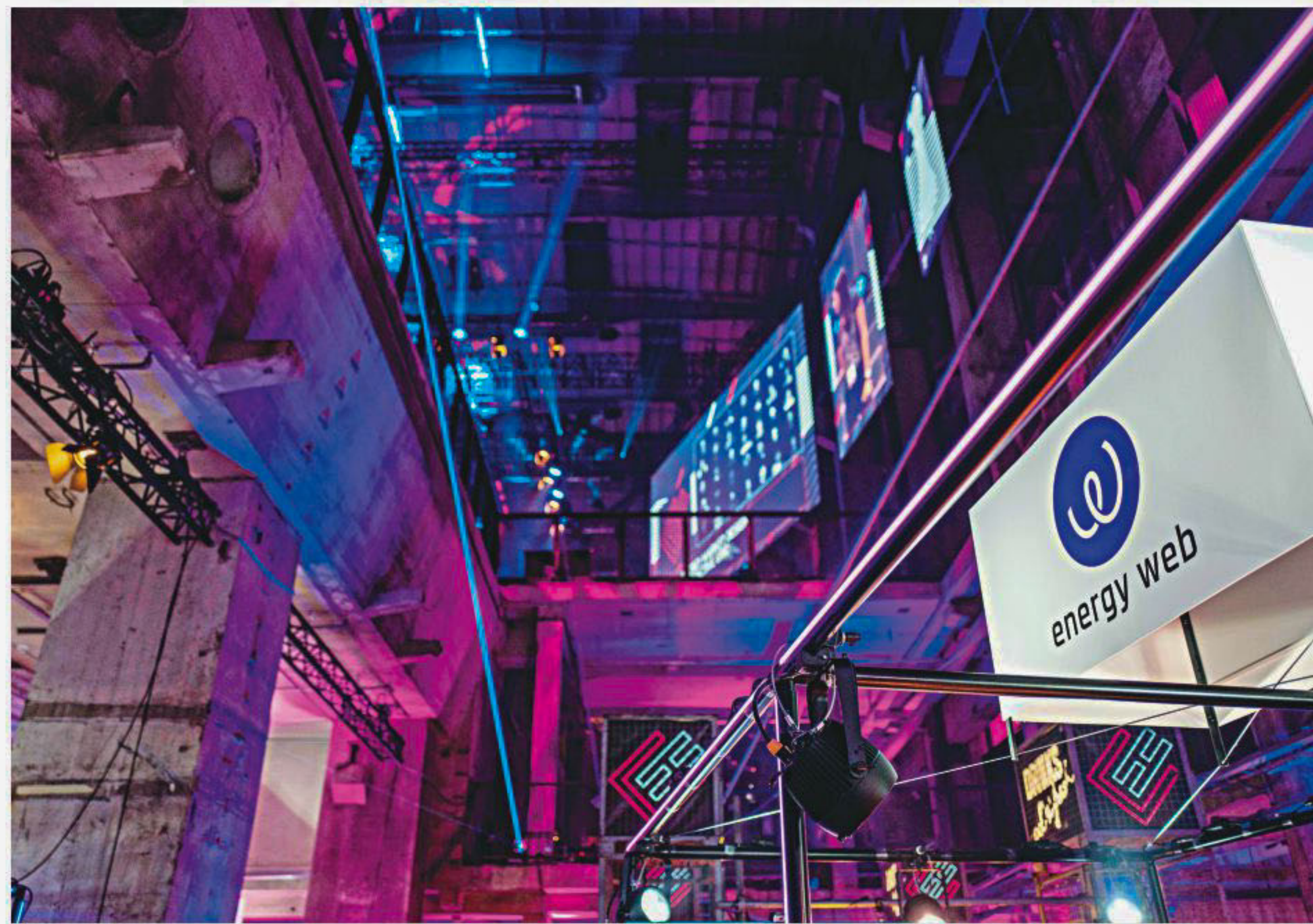
blockchain technology with varied objectives. Many of these government bodies have been trying to digitise their land and property records management system using blockchain technology. In such solutions, every land-related transaction, including ownership transfers and pledging, gets recorded in a tamper-proof blockchain ledger, thereby offering transparency and efficiency in record keeping.

Many of the bodies are also working on developing solutions for electronic human records. The final goal of such a solution is the integration of multiple blockchain-based systems managed by multiple departments that issue and store certificates related to a human event, such as birth, death, education, marriage and subsidy eligibility. The underlying philosophy is that a human life consists of multiple sequential and non-sequential certificates that are linkable and verifiable through an integrated system of immutable ledgers. Blockchain technology can be used by governments to build robust systems and improve trust in the overall process.

Additionally, some government bodies are working on developing solutions for crowdfunding for public projects and other systems.

Blockchain is a promising technology that can revolutionise governance in Bangladesh in the digital age. While various research reports have suggested the huge growth potential of blockchain, it is important to recognise that this technology is not a panacea. It is an effective and versatile instrument in the hands of the government to implement better and effective service delivery to each citizen of the country. The government of Bangladesh has taken a step in the right direction by deciding to start experimenting with blockchain technology in the coming year.

The writer is a partner at PwC. The views expressed here are personal.



View of the Energy Web Foundation booth at the Event Horizon Summit, the Global Summit on Blockchain Technology in the Energy sector at Berlin's Kraftwerk on June 19.

Automation of trust while delivering citizen services is one such solution which will be driven by blockchain and a few other new technologies.

Worldwide, governmental institutions face an issue with building and sustaining trust with citizens due to the perceived lack of transparency in delivering services. Lack of trust arises since

to a lack of trust in the processes and systems.

These issues have long created the need for technology that can track transactions at a granular level like any online system, and such transactions, once recorded, should not be alterable by any entities. Blockchain addresses this need. It has emerged as the ideal tool for

regulatory procedures. The areas of implementation include public healthcare, digitalised identity, benefits distribution, bills and payments, legislation records, legal enforcements, taxation, and peer-to-peer electricity trading.

Multiple state governments in India have been working on the evaluation and implementation of

Deputy governor of India's central bank resigns

AFP, Mumbai

THE deputy governor of India's central bank has resigned, the bank said Monday, making him the second top official to quit the organisation in less than a year. Viral Acharya stood down almost six months ahead of his tenure, which had been clouded by speculation that he was at odds with Prime Minister Narendra Modi's government.

The Reserve Bank of India however said Acharya had resigned for personal reasons. "Acharya submitted a letter to the RBI informing that due to unavoidable personal circumstances, he is unable to continue his term as a Deputy Governor of the RBI," the central bank said in a statement.

The 42-year-old ruffled feathers in October after publicly accusing the government of undermining the bank's

independence.

That followed the resignation of governor Urjit Patel in December following a public spat with Modi's administration about alleged government interference.

Modi chose close ally Shaktikanta Das to succeed Patel, apparently to steer clear of any new controversy.

Many experts had expected Acharya to quit immediately after Patel's resignation. "Acharya's resignation is unfortunate but not surprising as he had clashed with the government over independence issues," economist Ashutosh Datar told AFP.

"It is unprecedented how two senior functionaries of the central bank have quit before their term ended," Datar said.

Local media reports said Acharya would likely return to his family in the US and join New York University's Stern School of Business in August.



REUTERS/FILE

The Reserve Bank of India Deputy Governor Viral Acharya arrives to attend a news conference after a monetary policy review in Mumbai.

Oil prices rise on US-Iran concern, stocks up ahead of G20 talks

AFP, Hong Kong

OIL prices extended gains Monday as rising US-Iran tensions fuelled supply concerns, while Asian equities also edged up ahead of a crunch meeting between Donald Trump and Xi Jinping this week.

Both main crude contracts are up almost 10 percent since Tehran last week shot down a US "spy drone" for breaching its airspace, ratcheting up fears of a conflict between the old foes.

At the weekend Trump said he would impose fresh sanctions on Iran, following bans of countries buying its oil, while US media reports said Washington secretly launched cyber-attacks against missile control systems and a spy network.

Both sides say they want to avoid war, but tensions have spiralled as a series of incidents, including the drone downing and recent attacks on tankers, raised fears of an unintended slide towards conflict.

The US president said he was ready to reach out to Iran if it renounced nuclear weapons, adding that if leaders did so "I'm going to be their best friend". But Iran continues to insist its atomic programme is for civilian purposes.

Brent rose 0.4 percent Monday and WTI was 0.9 percent higher.

"The geopolitical escalation in the Middle East is unquestionably a bullish short-term signal for oil markets, as even the thought of 20 percent of the world oil supply being affected is enough to trigger significant tremors," said Stephen Innes, managing partner at Vanguard Markets. "And these tremors are noticeably moving up the Richter scale."

The stand-off, coupled with a weak dollar as the Federal Reserve flags an interest rate cut, has helped push gold prices to six-year highs above \$1,400 as dealers look for a safe haven to park their cash.

Still, share markets remain buoyant on hopes Trump and Xi can break an impasse in their trade war when they meet on the sidelines of the G20 summit in Osaka this week.

Global equities have been rallying since

Trump hailed positive telephone talks last week and said the two would have a face-to-face in Japan, fuelling hopes of a possible end to their long-running tariffs battle.

"No one thinks the US and China will do a deal in Osaka, but there is some hope that we will have a positive development that marks a shift in the rhetoric and a re-energising of talks following the breakdown in the recent discussions," said Neil Wilson, chief market analyst at Markets.com.

Hong Kong added 0.1 percent, Shanghai ended up 0.2 percent and Tokyo was 0.1 percent higher.

There were also gains in Seoul, Sydney, Wellington, Manila and Bangkok, though Singapore, Taipei, Mumbai and Jakarta were in the red.

In early trade London and Paris each rose 0.1

percent while Frankfurt dipped 0.3 percent.

The dollar continues to face pressure from bets on the Fed lowering borrowing costs as soon as July in a bid to head off the effects of the trade spat and as the US economy shows signs of softening.

The greenback slipped against its major peers and most high-yielding units, with the Australian dollar and South Korean won 0.4 percent higher.

The Turkish lira jumped 0.8 percent after the opposition candidate in Istanbul's controversial mayoral election re-run again beat President Recep Tayyip Erdogan's ruling party.

Bitcoin continued to rise, breaking the \$11,000 mark briefly for the first time since March last year, as the cryptocurrency sector gets a huge boost from Facebook's unveiling of its own unit.



Flames emerge from the flare stacks at the West Qurna-1 oilfield, which is operated by ExxonMobil, near Basra, Iraq.

Qatar to invest \$3b in Pakistan

REUTERS, Dubai

QATAR is making \$3 billion worth of new investments in Pakistan, in the form of deposits and direct investments, the Qatari state news agency QNA said on Monday.

Following this investment, the economic partnership between Qatar and Pakistan will reach \$9 billion, the agency reported, quoting Qatari Foreign Minister Sheikh Mohammed bin Abdulrahman al-Thani.

Last month, Pakistan reached an accord in principle with the International Monetary Fund for a three-year, \$6 billion bailout package aimed at shoring up its fragile public finances and strengthening a slowing economy.

The Qatari announcement came after a visit by Qatar's emir to Pakistan. During the visit, Pakistan and Qatar signed several memoranda of understanding for trade and investment, tourism and business and for cooperation in financial intelligence, according to the Pakistani government's Twitter account.

Pakistani Prime Minister Imran Khan's government is seeking to stabilise its economy with loans from Gulf countries and international donors.

Saudi Arabia earlier provided Pakistan with a \$3 billion loan and a similar amount every year in oil supply on deferred payments. The United Arab Emirates also announced a \$3 billion loan package.

Indian builders woo buyers with cleaner, greener 'smart' homes

REUTERS, Bengaluru

WHEN Arkesh Mishra, 33, and his wife Anasuya scouted for a new home in India's tech hub of Bengaluru this year it was not the old real estate adage of "location, location, location" that was their main consideration - it was "peace of mind".

As Bengaluru, and several other Indian megacities with aging or inadequate infrastructure, struggle to tackle issues such as air pollution, congestion and water shortages, builders are looking to woo millennials with homes in upmarket gated-communities that offer open green spaces, drinkable tap water and amenities that range

from smart-home connectivity to oxygen generators.

"Both my wife and I work and we need to have a place to come back to where we love living. The government's not been able to provide these facilities, which is why we are paying for them," said Mishra, a human resources lead for a large multinational.

"For our generation, these are important. I want to have the option of going for a jog, or a swim without having to deal with traffic, noise or worry about safety issues," said Mishra, whose gated-community boasts a tree grove, an art street and an open air cinema, among other features.

Property developers are increasingly willing to indulge and attract buyers in a

slow real estate market dented by a liquidity crunch in the shadow-banking sector and bad debt woes at state-run banks. An inventory glut has pressured margins in a sector where double-digit price rises were the norm for more than a decade.

"In a market where people are struggling, your product sells because you have added these amenities that people seek - this is what is selling properties," said Anand Narayanan, chief operating officer at builder Puravankara Ltd.

Big builders across the country, including DLF Ltd, Godrej Properties, Oberoi Realty and Brigade Enterprises, are selling the promise of better living as they vie for the attention of the growing urban middle-class.