

# Decoding blockchain technology

Industry experts share key insights at the first-ever bilingual blockchain conference in Singapore



Mr James Gong, founder of ChainB.com.

PHOTOS: SUSS, ISTOCK

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BLOCKCHAIN technology is widely regarded to be the driver of the fourth industrial revolution.

A digital, decentralised ledger of economic transactions recorded as "blocks", blockchain is a public ledger used to store content and record transactions and other valuable information.

This distributed ledger is hosted on millions of computers simultaneously and accessible to the whole community.

At the inaugural two-day Global Inclusive Blockchain Conference held at the Singapore University of Social Sciences (SUSS) campus at Clementi on April 17 and 18, leading practitioners, industry experts, vendors, students and members of the public gathered to share their views and hear about the latest developments in blockchain technology.

As the conference was bilingual, simultaneous English-to-Chinese and Chinese-to-English translations were provided via headsets. Live streaming was also available.

In the opening address of the conference, jointly organised by SUSS and China blockchain technology company Longhash, SUSS president Cheong Hee Kiat said: "New technologies, systems, work practices and paradigms are confronting us relentlessly, and almost assaulting us, our public agencies, businesses, society and individuals."

"Institutions such as SUSS need to keep abreast of developments, curate new information and applications, build new communities of practice such as

SUSS's Fintech and Blockchain Community, and disseminate information and training to prepare our communities for the future."

Since 2016, SUSS's Fintech and Blockchain Community has facilitated exchanges between industry practitioners and the school's part-time and full-time undergraduates.

Despite a ban on digital currencies that kicked in last September, organisations from China are forerunners in the technology.

Mr Roy Teo, head of Financial Centre Development Department of the Monetary Authority of Singapore (MAS), who delivered his speech in Mandarin, highlighted the potential of blockchain technology in making cross-border transactions cheaper, faster and more secure.

He mentioned Project Ubin, a project on distributed ledger technology that saw a collaboration between MAS, the Singapore Exchange, 10 local banks, six technology companies and six academic institutions.

It demonstrated how separate ledgers can be combined to make cross-border transactions more efficient.

Mr Teo said that innovation and technology will be the drivers of Singapore's vibrant future economy, of which blockchain will be a key component.

**Three key concerns highlighted by industry experts**

**Will blockchain technology drive the fourth industrial revolution?** Like the Internet, blockchain technology has the potential to change the face of the global economy as we know it, said

VeChain's chief executive officer Sunny Lu.

In his keynote address, Dr Xiao Feng, chairman and chief executive officer of Shanghai Wanxiang Blockchain Inc, said that blockchains may render the traditional corporate company obsolete.

"The entire blockchain is actually a set of algorithms. There will be no human error on the ledger, and no need for corporate hierarchy, human resources, finance and accounting," he noted.

To illustrate how the rise of blockchain impacts traditional businesses, he said: "China's popular instant noodle companies are being defeated by delivery services that can be ordered via smartphones."

"Delivery services probably did not set out to compete with instant noodles, but inadvertently, they have. The applications of blockchain may also have a similar effect and defeat many traditional corporations."

**Can blockchain technology be regulated?**

While most of the attendees displayed confidence in blockchain technology, industry players are keenly aware of the challenges that lie ahead, chief of all being the pertinent issue of compliance and regulation, which surfaced during the conference repeatedly.

Industry experts at the conference advised practitioners to self-regulate, obey the current laws in place and develop best practices.

**Are digital currencies just hype?** The manifold advantages of

digital currencies include the high speed of transactions, cost-effectiveness and multi-platform versatility.

Dr Xiao said: "There will be no need for the central bank to issue currencies nor banknotes, even counterfeit ones."

Coupled with smart contracts, digital currencies can make trading happen 24/7 — at faster speeds and lower costs.

However, the lack of feasible valuation models stands in the way of cryptocurrencies taking off in a big way. The industry is still nascent and volatility is high.

In a panel titled "Inclusive Blockchain — Speculation, Bubbles and Worthiness", ChainB.com's founder James Gong said that bitcoin is a convenient cryptocurrency and may become more popular when more people use it and see its value. But there are difficulties when it comes to using it as a common digital currency.

Industry experts advised caution when trading in blockchain-based cryptocurrencies, as it is challenging for digital assets to make quantitative investments in traditional finance.

Mr Tom Tao, general manager of Shanghai Wanxiang Blockchain Inc, estimated the blockchain community to have a market value of 250 billion yuan (\$52.3 billion), and that it may gradually develop into a virtual economy that differs operationally from traditional enterprises.

The conference attracted over 1,000 participants and close to 270,000 viewers online. Parallel sessions covered topics such as future opportunities for blockchain entrepreneurs and inclusive fintech.



Professor Cheong Hee Kiat, president of SUSS.



Mr Tom Tao, general manager of Shanghai Wanxiang Blockchain Inc.



Dr Xiao Feng, chief executive officer of Shanghai Wanxiang Blockchain Inc.

## Stamping out poverty

ACCORDING to the World Bank's global financial index, there are 2.5 billion unbanked or underbanked individuals globally. This means that many may not be able to obtain resources that bring about upward mobility, causing them to stay under the poverty line.

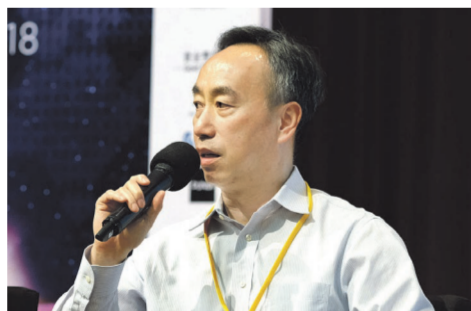
Blockchain technology has the potential to make global economies fairer by providing open channels so that production can be justly distributed in a transparent way.

**Reducing costs**

This was the main topic of discussion at the Global Inclusive Blockchain Conference that was jointly organised by Singapore University of Social Sciences (SUSS) and Longhash, a China blockchain technology company.

At the "Inclusive Blockchain — Will Blockchain Drive Inclusive Prosperity?" session, panellists talked about how blockchain technology has the potential to alleviate poverty by providing global e-commerce and financial services to underserved communities.

Panellist Mr Clay Lin, chief information security officer of the World Bank Group said: "Blockchain is promising



Mr Clay Lin, chief information security officer of the World Bank Group believes that blockchain has promising potential to alleviate poverty.

as its records are transparent, reducing transaction costs and corruption, and increases access to funds, which directly helps the poor."

Right now, transaction costs pay for intermediaries such as banks, securities and insurance. Mr Qiao Ke, the founder of MediShares, believes that with blockchain technology, these monies can be freed up. MediShares offers an Ethereum-based platform that allows individuals to self-insure.

This can be done via smart contracts

that offer low operation costs and guaranteed risks compensation, eliminating the need for agents. The contracts will automatically complete claims, and can be scaled to the number of thousands, or ten thousands.

**Wide uses**

According to its advocates, blockchain technology has diverse applications that can help to make the world a better place, even solving environmental and sustainability issues.

Mr Cao Yin, the founding partner of Energy Blockchain Labs announced that the company has created a platform for corporate carbon reduction in collaboration with the Shenzhen Environmental Energy Exchange in China and the Shenzhen Stock Exchange.

He said: "In the world of inclusive finance, energy sources should be dispersed for the people and not controlled by big companies. United States' president Donald Trump's withdrawal from the Paris agreement was disappointing but motivated us to move towards decentralisation. With blockchain, enterprises and the global carbon trading market can help to prevent the global carbon market from

collapsing, even without the participation of the US."

Another application of blockchain is to help eradicate human trafficking. Since blockchain can record identification for migrant workers, human traffickers will not be able to deny such workers of their rights by tactics such as confiscating their passports. So every worker just needs to access the Internet or a mobile network to prove his rights.

Mr Cao and another panellist Ms Kathleen Chu, public relations and marketing lead of Blockhive, a platform that incubates projects with potential to benefit from blockchain technology, raised the example of Estonia's "estcoin".

This national cryptocurrency serves as a community token for its e-residents. The transparent blockchain will enable digital signatures and contracts and guard against tampering and corruption.

**Achieving Internet parity**

Despite grand ambitions, an obstacle persists for blockchain technology — around 3.9 billion people in remote areas globally do not have Internet access.

Founder of blockchain-based company Meshbox, Mr Harry Xiao aims to solve this

problem with his device, which is based on a public blockchain system.

One can connect to it by paying digital tokens, and then earn digital tokens by sharing the network with others. It integrates routers and computer equipment with a powerful CPU and also has a storage function.

Blockchain technology seems to have potential to create a more inclusive economy by making services more secure, faster and cheaper. It is up to the industry to work towards getting more communities online so as to move closer to the ultimate goal of eradicating poverty.

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