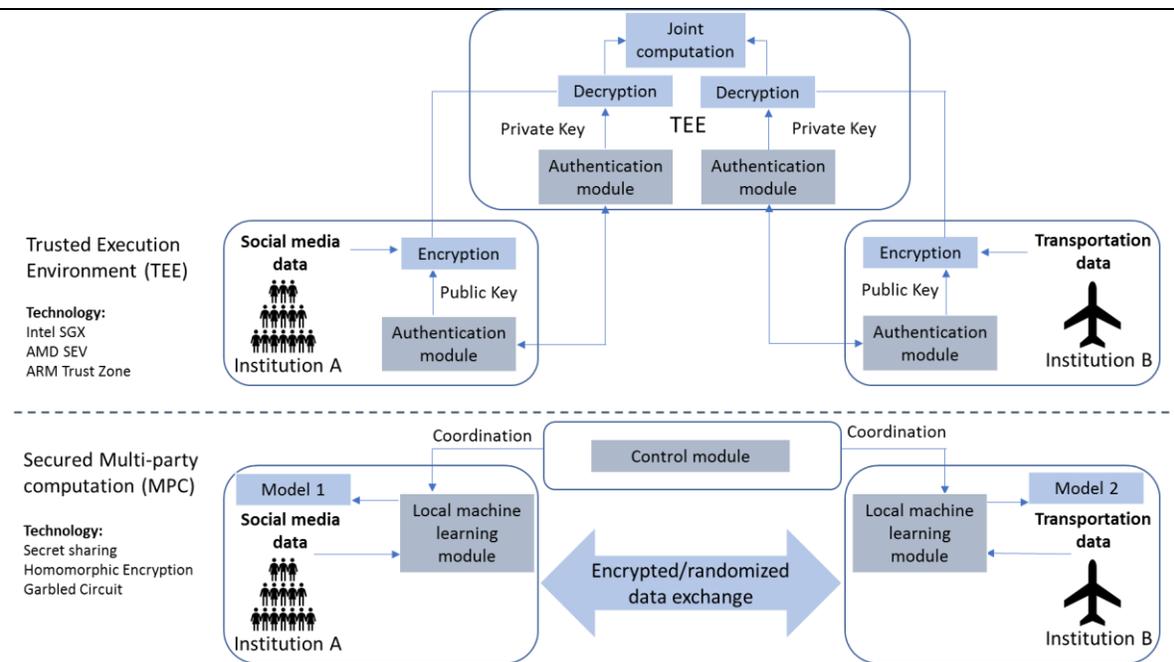


Global FinTech Weekly



Highlight of the week – Why does HKEx invest into an MPC startup?

Figure 1: An illustration of secured data sharing: MPC vs TEE



Source: AMTD Research

HKEx invests in a multi-party computation (MPC) startup founded by Professor Andrew Chi-Chih Yao, the guru of MPC technology

HKEx recently announced that it has signed a letter of intent to acquire a minority stake in a Beijing-based data technology company, Huakong TsingJiao Information Science (Beijing) Limited (TsingJiao). Professor Andrew Chi-Chih Yao is the 2000 ACM A.M. Turing Award winner and founder of Tsinghua's Institute for Interdisciplinary Information Sciences. We believe this is part of HKEx's strategic plan to explore opportunities to create its Data Marketplace platform. MPC is one of the technological directions of secured data sharing. The awareness of data privacy and data security has significantly increased since 2018 after 1) Facebook's leakage of data and 2) EU's release of General Data Protection Regulation (GDPR). So did the need for secured data sharing technology.

Secured data sharing has huge potential in FinTech industry

Secured data sharing allows two or more parties to collectively perform some computation and receive the resulting output without exposing any party's sensitive input. We see great potential of secured data sharing and

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computation technology in FinTech. With increasing customer data scattered in different institutions, data sharing that preserve data privacy can greatly improve model accuracy. Joint modeling can be used in customer profiling, targeted marketing, credit scoring/risk monitoring for consumer loans and SME loans, insurance etc..

MPC has progressed from theoretical research into real-world applications

Traditional secured MPC uses cryptographic technology. Professor Yao first mentioned MPC problem in his seminal work in 1980s. Since then, 30 years of research on MPC has been conducted, progressing from pure theoretical research into real-world applications. In 2017, Google brought the concept of “Federal Learning” which enables mobile phones to collaboratively learn a shared prediction model while keeping all the training data on device, decoupling the ability to do machine learning from the need to store the data in the cloud. Google’s move sparked industry enthusiasm in application of MPC. MPC technology can be used in banking, healthcare, transportation where data sharing and joint computation is required.

MPC and Trusted Execution Environment (TEE) are the two major technology directions in secured data sharing

The significant number of cryptographic operations involved in traditional secured MPC technology make them impractical for most real-time, online computations at current stage. Trusted execution environments (TEEs) provide hardware-enforced isolation of code and data in use, making them promising candidates for making MPC more tractable. For example, Alicloud’s Link TEE provides security solution for IoT devices. Ant Financial is using a combination of MPC and TEE to enable joint machine learning among multiple parties.

News of the week

Payment

US Bank acquires business POS operator Talech

US Bank has acquired Talech, a supplier of point-of-sale software to small and medium-sized businesses. Talech offers order management, inventory and staff reporting, customer management, business insights and payments processing through a single, integrated point-of-sale system. US Bank try to help businesses simplify their operations and make better decisions through an integrated point-of-sale system.

Source: [Finextra](#)

Payment

Three of Australia's biggest banks invest in digital receipt startup Slyp

ANZ, NAB and Westpac backed Reinventure have contributed to a \$4 million investment round in smart receipt start-up, Slyp. Founded by former PayPal executive Paul Weingarth, Slyp's technology automatically links a smart, digital receipt to a customer’s bank card and displays this inside the banking app.

Source: [Finextra](#)

Payment

Visa, Samsung and Fiserv unit First Data team on dongle-less mPOS payments

Samsung, Visa and Fiserv unit First Data have teamed up to make the mPOS dongle a thing of the past, replacing it with a software-based system that lets merchants accept contactless payments of any amount on their handsets without the need for any additional hardware. The SoftPOS system uses the NFC functionality in a merchant's smartphone or tablet to let them accept payments from contactless cards as well as NFC-enabled handsets and wearables.

Source: [Finextra](#)

AI

YES Bank partners Microsoft to chatbot

Neo bank

India's YES Bank has enlisted Microsoft to help revamp its AI-enabled chatbot, using the latest technology to let customers carry out everything from managing their credit cards to checking their loan eligibility. With Microsoft's technology behind it, the bank plans to expand the bots capabilities, and integrate it with the likes of WhatsApp, Alexa, Google Assistant and Siri.

Source: [Finextra](#)

Online Lending

Stripe gets into the lending game

Payments giant Stripe is stepping up its diversification efforts, launching a cash advancement service for the internet firms that already use its services. Stripe Capital promises to make the process faster and easier for American online firms by taking advantage of its existing integration with them. The fintech unicorn is promising no lengthy applications or collateral obligations, with funds hitting approved applicants' Stripe account the next day.

Source: [Finextra](#)

Online Lending

8-month-old India startup FPL Technologies raises \$4.5M

The startup is offering an app called OneScore to help users check their credit score and learn how to improve it. The app was launched two months ago and has already amassed more than 100,000 users. It has raised \$4.5 million from Matrix Partners India, Sequoia Capital India and others in its maiden financing round.

Source: [Techcrunch](#)

AI

AppZen nabs \$50M to build AI tools for expenses and other finance team work

AppZen, which builds AI-powered tools to automate functions within the finance department, has raised another \$50 million. Going forward, while the company continues to see a lot of traction with its existing products in auditing how a company pays out money, the plan will be to build that out to other functions of the finance department, covering, for example, other areas where the finance department makes evaluations to determine spend and money collection (billing) across the business.

Source: [Techcrunch](#)

Blockchain

Drone data service to create blockchain-based black box

Red Cat, a maker of data recorders for drones, has partnered with GoChain, a decentralized-web and cryptocurrency startup, to store flight information on a blockchain. The partnership will move Red Cat's drone data analytics and services onto GoChain's blockchain. By having data like GPS coordinates, video, photos, and flight and telemetry logs on a distributed ledger, Red Cat claims drone flights can be monitored with absolute integrity.

Source: [coindesk](#)

Blockchain

Oracle lets blockchain tech firm Hydrogen into its cloud marketplace

Software giant Oracle has admitted Hydrogen, a developer of ethereum-based enterprise blockchains, into its Cloud Marketplace. The listing means New York-based Hydrogen's APIs are now available to nearly half a million Oracle customers to develop applications for banking, investing, savings, insurance and wellness.

Source: [coindesk](#)

Challenger Bank

Starling Bank adds Digital Risks and CyberSmart to business marketplace

Starling Bank, the UK's leading mobile-based bank, has added SME insurtech Digital Risks and cybersecurity platform CyberSmart to its business marketplace. Digital Risks is the first insurance provider to offer insurance targeted to meet the needs of small and medium-sized digital businesses and the new and emerging threats they face. CyberSmart uses technology to identify digital weaknesses of businesses in less than 60 seconds, recommends fixes and helps companies manage these through a simple online dashboard.

Source: [Techcrunch](#)

Challenger Bank

Chime now has 5 million customers and introduces overdraft alternative

Challenger bank Chime has reached 5 million customers in the U.S. The San Francisco-based startup is creating an FDIC-insured mobile bank without any physical branch. The company also promises fewer fees. The company is also rolling out a new feature that it has been testing for a while. Chime SpotMe is an alternative to bank overdrafts.

Source: [Techcrunch](#)

Regtech

Netki retools digital ID service for FATF's new crypto 'Travel Rule'

Netki has upgraded its digital identity service to help cryptocurrency firms meet tough new international standards for combating money laundering. The upgrade to TransactID adds two new features: The ability to break down certificates of a user's identity into smaller pieces of personally identifiable information (PII); and the ability for senders and receivers of money to request PII from each other.

Source: [coindesk](#)

Cryptocurrency

LINE

Messaging giant LINE wins Japan license for crypto exchange business

LINE, provider of Japan's most popular messaging app, has just been approved for a cryptocurrency business license in the country. The messaging firm is aiming to build a "token economy" around its own blockchain LINK Chain. It will offer two tokens – LINK Point in Japan and LINK for other nations – aimed to connect users and service providers.

Source: [coindesk](#)

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