

Arthur Yuen: Opening remarks - Hong Kong Monetary Authority (HKMA)-Hong Kong Association of Banks (HKAB) seminar

Opening remarks by Mr Arthur Yuen, Deputy Chief Executive of the Hong Kong Monetary Authority, at the Hong Kong Monetary Authority (HKMA)-Hong Kong Association of Banks (HKAB) seminar on "Quantum computing and quantum resilience for banking industry", Hong Kong, 6 July 2026.

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Good afternoon, everyone. Not long ago, a session on quantum computing might have sounded futuristic. Today, it is a topic for bankers, risk managers and board directors. Last month's strong turnout for our A.I. session showed the industry understands very clearly that technological shifts are already underway. I would like to share with you three observations.

My first observation is: **technological advancement, from A.I. to quantum computing, is going to transform the construct of banking business.** The question is no longer whether new technologies will affect banking, but how effectively we navigate this transition, and how we capture the upside without losing control of the risks.

New technologies open up real possibilities for banks. A.I. can turn more data into faster insight and better service. Distributed Ledger Technology (DLT) can change how information and value move. High-performance computing can greatly expand the speed and scale of analysis. And quantum computing may eventually allow us to analyse risks and test complex financial scenarios at a pace we can hardly imagine today.

But every new capability creates a new responsibility. Better analytics require better data. Greater connectivity increases operational and cyber dependencies. And more powerful computing means we must think earlier and more seriously about resilience, security and the future of cryptography.

So the real challenge for the banking industry is not simply to adopt more technology. It is to adopt technology in a way that makes banks not only more efficient, but also more secure, more resilient and more trusted.

A common thread running through all these is nurturing a robust fintech workforce. And this leads to my second observation.

Modern banking began as early as the 14th century. And despite several hundred years of technological advancement, **banking business has been and will continue to be a people business.** This is because banking relationships are fundamentally premised on trust and human interactions.

It would be fair to say that, while some may be more receptive than others to talking to chatbots, generally customers are still keen to be able to interact with a human bank representative as and when necessary, particularly when there is a problem. And it

does not seem likely that customers would feel comfortable to place their money with a bank that is entirely managed by machines.

A.I. applications are certainly improving day by day and have the potential to do far more than just carrying out programmable tasks, especially when powered by quantum computing. But there remain risks and limitations, such as potential bias, hallucinations, and misinformation and disinformation. There is now increasing emphasis on the need for not only "human-in-the-loop" but also "human-in-the-lead" in designing and operating A.I. models and applications.

There is sometimes a temptation to frame A.I. and quantum computing as a contest between humans and machines. I think that frames the issue wrongly. In banking, technology rarely removes the need for judgment; more often, it changes where judgment matters most:

- First, no organisation is likely to thrive if it adopts technology mainly as a way to take cost out. Efficiency matters, of course. But the bigger prize is better decisions, better service and better risk management.
- Second, the more tasks that are automated, the more valuable distinctly human capabilities become. When something goes wrong, customers do not look to an algorithm for reassurance. They look to people. That's why ethics, communication and integrity become more important, not less, in a more technological industry.
- Third, tomorrow's professional will need to work fluently across two interfaces: with other people, and with intelligent systems. They will need to ask better questions, challenge outputs, explain decisions and know when not to rely on the machine.

That brings me to the final observation.

For any organisation making more use of advanced technologies, **the key to success is to ensure that humans and machines can complement and bring out the best of one another.**

To achieve this, **reskilling and upskilling of the workforce is the most critical part of the equation.**

That is why, when we think about the workforce of the future, we should think in three layers as identified jointly by the HKMA, HKAB (The Hong Kong Association of Banks) and HKIB (The Hong Kong Institute of Bankers) in a study of last year:

- The first is technical depth: skills in A.I., data cybersecurity and, increasingly, quantum-related governance and security.
- The second is human soft skills: creativity, relationship building, adaptability and the ability to work effectively with machines rather than merely around them.
- The third is banking judgment and knowledge: understanding risks, regulations, products and markets well enough to apply new tools safely and responsibly.

In other words, the future bank will not be built by technologists alone. It will be built by people who can connect technology, business and trust. And I would emphasise that soft skills are equally, if not more essential, in the to-be-transformed banking business.

Let me now come to the event today on quantum computing. I can assure you that this is just one of the HKMA's many engagements with the banking industry on this important subject.

It is vital that bank executives are conversant with quantum computing for at least two reasons:

- First, it is about cyber resilience. Advanced quantum technology is expected to have the capability to break encryption protocols that are currently used in just a couple of years. Banks must become PQC (Post-Quantum Cryptography) ready before the first attacks come about. This requires starting to take actions now.
- Second, to stay competitive, our banking industry cannot afford to lose out on the use of technology to improve customer service. Even though individual banks may make use of quantum computing in different ways, it is important to think and plan ahead.

The HKMA will be monitoring the QPI (Quantum Preparedness Index) of each bank. And I hope that you would find it helpful to hear from the experts today on how to make progress.

Last but not least, allow me to conclude with a few points:

- People have been and will remain the most important asset to the banking industry.
- The HKMA is committed to supporting the banking industry in building a future-ready workforce. At the same time, we do expect banks to make their utmost efforts to reskill and upskill their staff while adopting new technologies.
- Above all, it is crucial that everyone involved is committed to a culture of continuous learning.

So, let's learn together!