

22nd Appointed Actuaries Symposium

29 November 2024

Keynote Speech by Mr Clement Lau

Executive Director, Policy and Legislation, Insurance Authority

Timothy¹, Chris², Flora³, distinguished guests, ladies and gentlemen,

I am very honoured today to speak at the ASHK 22nd Appointed Actuaries Symposium. Not long ago, I had the pleasure of sharing my thoughts on a host of issues at the regulatory panel of the Asian Actuarial Conference, so today, I would like to bring you some refreshing perspectives, particularly on the transformative power of technology and data-driven innovation. Coincidentally I notice that there is a session later in the day on tech-savvy actuary, so I believe the theme I have chosen for my speech will rightly resonate with your profession and the industry.

Over the years, technological advancements, changing consumer behaviour and innovative operating models have redefined many aspects of the financial sector, gradually reshaping the way we engage with financial services and impacting the day-to-day work of financial professionals.

The insurance industry has capitalised on this trend to reshape customers' engagement with insurance services. Some notable observations from the market include the shift towards digital interactions in the value chain for improved efficiency and customer experience, as well as deployment of data analytics for deeper insight into customer behaviours.

The increasing adoption of technology is also enhancing the work capability of insurance professionals, including actuaries. System automation and task migration to the Cloud, for example, help streamline or eliminate manual processes. This could be a simple improvement, such as reducing the reliance on spreadsheets for generating results, or comprehensive transitioning of operations to online for greater efficiency. The outcome is a reduction in manual errors, the creation of clear audit trails, and a faster work delivery, which allows for more time to be dedicated to in-depth analysis and interpretation of results.

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Artificial Intelligence, or AI, is also one of the emerging technologies that has been widely discussed lately. Indeed, AI is bringing notable changes to the insurance industry, offering benefits across the value chain. AI will also enable actuaries to enhance modelling through machine learning and predictive analytics, with the ability to analyse vast amount of data quickly and accurately, leading to more precise forecasts and better insights. Generative AI is also able to assist in report writing and presentation design.

Technology, including AI, also goes hand in hand with data. For the insurance industry, real-time access to data helps spot trends, enhance risk management, and refine analysis. A broader data scope also promotes product development. Driven by a more open ecosystem and stronger partnerships, the industry is now embracing data connectivity for more innovation. Riding on this momentum, the IA launched the Open API Framework last year to provide guidance to the industry in deploying API for data transfer. The Framework aims to foster data connection and cross-sector partnerships by standardising processes. Next year we will also publish a White Paper on Federated Learning to promote data analytics without privacy concerns based on new or alternative data sources.

Indeed AI holds promising prospects and we as the regulator have also been working to facilitate the adoption of AI by the industry, but we should acknowledge that AI also comes with concerns like algorithmic bias and data privacy. Specifically, AI algorithms could lead to breakdown of risk pooling and exclusion of vulnerable groups. Black box algorithms could also produce unexpected outcomes. Furthermore, while AI has been enhancing cybersecurity tools, it has also posed a risk to cybersecurity and such risk is expected to increase with AI tools becoming more accessible.

In fact, as our reliance on technology grows, so does our exposure to cybersecurity risks. In Hong Kong alone, technology crime has quadrupled over five years, from 8,300 cases in 2019 to 34,000 in 2023, with reported losses reached HK\$5.5 billion. Cybersecurity incidents, including impersonation and deception, are also exacerbated by the increasing use of AI.

Last month, the Government published a Policy Statement on Responsible Application of Artificial Intelligence in Financial Market, setting out its policy stance and approach towards promoting the responsible application of AI in the financial market. As the regulator, we attach great importance to ensuring that our regulatory framework remains robust enough to safeguard vulnerable groups, but also flexible enough to fulfil industry aspirations. In response to the escalating cyber threats in the digital era, we will be launching a Cyber Resilience Assessment Framework under the

Guideline on Cybersecurity to strengthen insurers' cybersecurity and operational resilience. As a next step, we will conduct an industry survey to better understand the market landscape, and to facilitate the development of a robust but flexible regulatory framework to spur the fair, transparent and ethical use of AI.

However, it is not the rules and regulations alone that can make these tools serve our industry well. Ladies and gentlemen, the evolving technology will continue to redefine the insurance industry, and actuaries will remain to play a crucial role in this journey. Your responsibilities and expertise extend beyond ensuring statutory compliance, but are also instrumental in shaping broader corporate strategies that align with the rapidly changing environment and consumer expectations.

I encourage you to explore with ecosystem partners and harness the potential of data and technology for enhancing internal capabilities, while driving innovation and growth. I also look forward to engaging you closely in the process of developing our regulatory framework, identifying use cases as well as enhancing the capacity of industry practitioners in adequately deploying these new technological tools.

Thank you very much once again for having me here today. I wish you a fruitful and rewarding day.