

Artificial Intelligence and the Insurer

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No longer used solely by innovative technology companies, AI is now of strategic importance to more risk-averse sectors such as healthcare, retail banking, and even insurance. Built upon DAC Beachcroft's depth of experience in advising across the insurance market, this article explores a few ways in which artificial intelligence is changing the insurance industry.

How might AI change insurance?

Artificial intelligence (AI) is an increasingly pervasive aspect of modern life, thanks to its role in a wide variety of applications. The technological advancement and applicability of AI systems has exploded due to, cheaper data storage costs, increased computing resources, and an ever-growing output of - and demand for - consumer data. As such, we expect to see change in several critical aspects of the insurance industry.

- 1. Matching customers to products.** AI can be used to process a wider range of data to produce better outcomes in terms of underwriting. By using data more traditionally captured and analysed during underwriting in conjunction with data collected from new sources, for example social media and wearables, AI is able to better assess an individual's risk than traditional risk scoring methods. For example, such use of AI may reveal that an individual led a healthier life than their age and occupation might suggest. This would potentially make them eligible for a wider range of or more favourable insurance policies that better suited that individual than in the past. In addition, the application of AI in the online advertising space has also meant that insurers are able to make smarter decisions about whom to target for their products, and in what manner.
- 2. Streamlining customer interactions.** By making customer interactions more seamless and the conversations more accessible, the use of AI could encourage greater take up of insurance products. Insurers regularly use AI-assisted chatbots with natural language processing and generation to answer customer queries and offer quotes, and the chatbot market is expected to reach £980 million (USD\$1.25 billion) by 2025. For example, California-based Next Insurance is one of several insurtech start-ups which uses a Facebook Messenger chatbot to allow customers to obtain quotes for and purchase insurance. Property and casualty insurer Lemonade goes so far as to say that "Maya, our charming artificial intelligence bot, will craft the perfect coverage" for customers in just 90 seconds.
- 3. More accurate pricing.** Insurance relies heavily on algorithmic approaches to help people prepare for unforeseen events. In particular, sophisticated statistical models are used to determine how best to allocate risk, and understand how this risk balances against premiums and pay-outs. These methods have not changed much over the last few centuries: but thanks to AI, advanced data-driven tools can make rapid and insightful inferences by identifying new patterns in historical data. When combined with real-time collection of data through sensors, insurers may have the ability to create hyper-personalised risk scores. This would allow premiums to be based on actual behaviour (for example, exercise habits), instead of relying on just the risk profile of certain categories such as age and gender.
- 4. "Nudging" the insured's behaviours.** Insurers can utilise AI learnings to better advise customers on how to avoid risks. Known as "nudging", this is a form of choice architecture that presents (or incentivises) certain options, without forbidding any alternatives. For example, AXA's "Xtra" is a Wellness Personal Coaching mobile app which includes a chatbot that suggests ways for policyholders to meet fitness and nutrition goals. Vitality, amongst other life and health insurance companies, promotes exercise by offering premium discounts to gym goers. Although most nudges currently rely on conventional data analytics rather than AI *per se*, there is clear potential for AI nudges for policyholders in due course. It is easy to imagine an AI-empowered nudge to drivers to follow low-risk travel routes, which is then rewarded with lower premiums or other incentives for following the advice.
- 5. Fighting fraud and improving claims management.** The identification of fraudulent behaviour can help insurers improve claim management, which may lead to fairer outcomes. According to the Association of British Insurers, the loss due to insurance fraud in the United Kingdom is about £1.2 billion each year, causing a 5% increase in insurance premiums. Compliance technology start-up Hanzo has AI tools which trawl through social media sites including Facebook and Twitter for contradicting evidence, and has been public about partnering with insurers. AI can also be used to undertake damage assessments, as demonstrated by UK-based Tractable. When photographs of car damage are uploaded to the Tractable platform, the AI compares the pictures against the repair costs estimate in real-time, thereby potentially accelerating the claim settlement process.

Of course, it is important to note that insurance is a large and complex industry. Even in light of the perceived advantages

discussed above, insurers may not always find it easy to integrate AI within products or backend systems. A Capgemini survey revealed that as of 2018, only 2 per cent of insurers worldwide have seen full-scale implementation of AI within their business, with a further 34% still in “ideation” stages. Furthermore, there are important ethical considerations which have yet to be addressed, with critics warning that AI could lead to detrimental outcomes, especially in relation to personal data privacy and hyper-personalised risk assessments. While more work needs to be done to understand the various implications of AI in insurance, it nevertheless remains an important and fascinating space to watch.

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