How AI will change the face of insurance

By Gielie Matthee

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Should Elon Musk's robot-surgeon start inserting electrodes into human brains to connect humans and computers via a high-bandwidth brain-machine? What exactly are the implications for medical insurance? Should a self-driving flying taxi crash and kill civilians? Who is responsible? These are the questions our CEO, Lizé Lambrechts, is asking. The insurance industry is developing new ways to assess and underwrite risk as artificial intelligence (AI) and automation advance.

Image source: Getty/Gallo

By no means new, AI in its modern form is the pulse of the Fourth Industry Revolution (4IR). Its ubiquity is infiltrating almost every aspect of human life, from health and shopping to dining and travel. It ranges from wearable technology (such as smart watches and sensors that measure blood sugar levels continuously) to automated manufacturing. Significant design thinking goes into these devices to make our interactions with them seem intuitive.

AI is meant to augment human endeavours, to make life more meaningful by eliminating mundane repetitive tasks.This means that for the foreseeable future we will have to live alongside AI. The next generation will be at the forefront of a fully-fledged 4IR with the associated stem (science, technology, engineering, and mathematics) skills required to thrive. Employment opportunities will be focused on designing fully autonomous systems with as little human intervention as possible.

Insurtech

Although the insurance industry in Africa is relatively underdeveloped, accounting for less than 1.2% (approximately $0.06trn) of underwritten insurance premiums globally, it has been able to adapt with innovative approaches to the challenges presented by 4IR. Insurtechs are already investigating how to offer increasingly personalised solutions in the South African context.

Through insurtech the claims process can also be improved. For example, AI could analyse a photograph of an accident and refer it for assessment or automatically pay the claim. Data gathering has proved challenging in this area, but the insurance industry will be able to move forward by adopting solutions spearheaded by the international community. The questions get more complex as the technology advances.

Vehicle related deaths account for 1.2-million people globally. Autonomous vehicles are touted as a solution to this, or at least, reduce the mortality rates associated with this peril. There are numerous manufacturers who already offer driver assisted autonomous vehicles. Einride, a start-up company in Sweden, has fully autonomous delivery trucks on public roads where no person is required to be present in the vehicle. The technology for fully autonomous passenger vehicles is readily available. Internationally, legislation is hampering progress.

The question of liability and road traffic safety is still being discussed in many jurisdictions. The way in which liability law is ultimately defined in this context will play a major role in determining the type and design of insurance policies to cover autonomous vehicles and related perils.

Sweden follows a traffic insurance approach where the victim is indemnified first and compensated by a first-party insurer for damages only. Conceptually first party insurance could be made obligatory for self-driving cars, paid for by the owner, operator or the manufacturer of the vehicle (depending on the jurisdiction and the party responsible for safety). The insurer may attempt to recover the cost of claims from the responsible party, however, in the Swedish example, this might be impacted by the significant social insurance that comes into play. Another option is to hold the licence holder of the vehicle liable. This risk-based liability is already in place in Germany.

Population growth

Another interesting problem AI attempts to solve is population growth. The UN projection is that by 2100 the world population could be circa 11-billion people (currently 7.3-billion). Improving crop yield is certainly an important problem to solve. Significant progress has been made in creating what is known as a “smart farm”. AI is already utilised to measure soil quality, nutrient levels and, in combination with geo-mapping, it calculates the correct density and depth to plant. Machine learning could be applied to improve yields in farming and this information can then be used to form part of the risk assessment for premium ratings.

These are just a few examples. The proliferation of AI is set to continue over the next few years, with significant consequences for every industry. As such, the insurance industry will benefit from sustained market research and intelligent solutions that continuously look ahead to add real value to people’s lives.

ABOUT THE AUTHOR

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