INSIGHTS

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How insurers can **navigate the threat of biased AI**

Insurance, like many other industries, is embracing the AI revolution.

90% of insurance companies have already implemented some form of AI or are in the process of doing so. And for good reason. AI offers huge benefits across a range of functions. From automating claims decisions and personalising quote generation, to detecting fraud and powering customer service chatbots, AI is helping to reduce cost, increase efficiency and improve customer experience.

But AI come with risks, especially with the data being used to train models. If biased data is used for decision-making, it leads to biased outputs – it can even amplify underlying bias. This poses big risks of breaching legislation like the 2010 Equality Act, as well as creating new risks with impending AI laws such as the EU AI Act. As AI continues to play a bigger role in insurance, it's key that insurers ensure the data underpinning their AI is as unbiased and as fair as possible. But that's not always an easy task.

How does bias creep into AI models?

All data is naturally backwards looking, recording previous behaviours and events. Yet, making decisions based on the past may lead to insurers making unfair assumptions about customers, resulting in more expensive premiums. This isn't a new problem. In 2012, the exclusion of gender from motor insurance quotations became standard practice, as it was found to reinforce harmful stereotypes.

While insurers might not think they're being discriminatory, it's still possible for harmful prejudices to creep into AI outputs depending on the data and practices used to train the model:

No Human Sense Check

While AI and automation will change the landscape over the next 10 years, insurers must not become overly reliant on the technology. Failing to have a human review AI outputs and inputs will inevitably lead to bias creeping in.

Data Transparency

If insurers don't know exactly what datapoints have been used to train an AI, or the source and context of that data, identifying and addressing biases becomes difficult. For instance, if one postcode has historically high home insurance claims, while a neighbouring street doesn't, the AI would assign higher premiums to residents in the 'riskier' area. But the raw data doesn't give the context that the neighbouring street was only developed 3 years ago, which is why no claims have been made. This context is important because that street still faces similar weather and crime threats, so the bias must be accounted for.

Flawed Data Collection

Missing, inaccurate, or duplicate data also causes AI to incorrectly determine risk level. For example, if a dataset lacks a certain data point, the pricing model will rely purely on data it does have available. This can result in inaccurately high premiums where additional information would have brought them down.

Is bias always bad?

The question of whether to always remove bias is more complicated than it appears. This is because from a business perspective, it is important for insurers to understand broad trends around the risk posed by different demographics or locations, since risk correlates to the chances of paying out a claim. At the same time, insurers still can't deliberately train AI to blanket charge one group more than another.

The way around this challenge is for insurers to generate new risk data that doesn't depend on discriminatory factors like age, race or gender. More insurers are tracking and recording customers' habits on devices like telematics boxes or fitness watches. This data can be used to fairly train AI so insurers still get to price according to risk, without creating biased models.

It all comes down to the data

There are three key steps insurers must take to understand how data causes bias in their AI's outputs, and to protect themselves from any regulatory or reputational repercussions caused by flawed models:

1. Understand the Training Data

To promote equality of AI outputs, insurers must be alert to potential inequalities in their inputs. A proper understanding is needed of the datapoints being used – and not used – to train an AI. Are there any datapoints being fed to the AI that legally shouldn't be, like gender? Are there any gaps or blind spots in the data that could have unintended consequences?

2. Edit the Data to Eliminate Bias

If negative bias is identified, it must be minimized as much as possible. This can be achieved by completely removing the biased data feed, recognizing the limitations of the data and tightly restricting the AI's use, or balancing the bias by generating new data aimed at improving equity.

3. Keep a Human-in-the-Loop

AI must be used in a regulated and controlled way. The data being used, and the models themselves, need to be regularly reviewed and assessed. Ideally, this work should be done by a diverse team, to ensure unconscious biases don't get missed by those who may not be able to recognise them. Taking a human-in-the-loop approach ensures insurers are transparent and accountable for the bias in their data and supports a more ethical approach to using AI.

Mitigating AI business risk with high-quality data

As new regulations like the EU AI Act emerge and tighten controls on AI use, it is imperative for insurers to address and understand the risk of bias in their models now. Proactive management of bias not only ensures compliance but also offers a competitive advantage and enhances customer satisfaction.

Insurers who effectively navigate these challenges will build trust and loyalty, positioning themselves as leaders in an increasingly AI-driven industry. The time to act is now – by scrutinising and refining their AI processes, insurers can harness the full potential of AI while maintaining fairness and quality in their operations.

About Sagacity

Data makes the world go round. Every day, we generate it, use it, consume it, and demand it. At Sagacity, we are all about the intelligent use of data. We work with some of the country's leading brands to support them in making wise decisions powered by data. We help them transform their customer data into a structure they can use, enabling them to improve it, make sense of it, and drive value from it.

We have delivered consistent success and ROI for our clients through new customer acquisition, customer management, onboarding, and ongoing development, to ensure every consumer is treated like an individual.

Data can reveal the full picture and we join the dots. Get in touch to find out how we can help your business address its current challenges.