MAN AND MACHINE:
A BRIGHT FUTURE FOR INSURANCE?

INTERVIEW BY
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Artificial intelligence has long held the promise of making our work lives easier. Now that promise is becoming a reality, thanks in part to new insurtech products, like those developed by Mateusz Maj.

MAJ, the CEO of Vivadrive, has been an entrepreneur since 2012, co-founding technology startups and mentoring at the University of Warsaw Incubator. He is also a data analyst with seven years of experience as a 'quant' in the financial industry.

The insurance industry has already demonstrated the potential of AI in areas like fraud detection, pricing, risk assessment, customer service and claims automation. Is the insurance industry a leader in the adoption of AI or are there other industries that have advanced further in their use of AI technology?

'AI is all the buzz these days, and with good reason! Thanks to our connected world, it's now a part of almost everything we do. ChatGPT is a prime illustration and is currently the subject of much conversation. In my business practice, it is present in almost all my conversations with customers.

And in the insurance world, data analysis and data science are super important. The insurance industry is always looking for ways to do things better, so it's no surprise that they were one of the first to embrace AI. But it's not just insurance — AI is making a big impact in industries like healthcare, finance and retail.

Personally, I keep an eye on the transportation and mobility sector, where AI is doing amazing things. For example, AI is making cars drive themselves, helping to keep vehicles running smoothly, predict potential maintenance issues and even helping to plan electrification of fleets.'

Are insurance companies prepared to capture value from the oncoming wave of innovation?

'Well, it depends! There's no easy answer. Some insurance companies are jumping on the AI bandwagon and others are taking a more cautious approach. For example, Lemonade uses AI to speed up the process of giving customers policy quotes. Root uses AI to give customers insurance prices based on their driving habits. And wefox is

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using AI and data analytics to make insurance simple and personalised for their customers. But not all insurance companies are using AI in the same way, so it really depends! These are examples of insurtech companies who are perceived as hyper-innovative.

But just being innovative isn't always enough. According to a study by Boston Consulting Group, a consultancy, publicly traded insurtech companies are having a tough time balancing the expectations of technology and insurance investors. As a result, their value has gone down since their public offerings. Although these companies were initially praised for their user-friendly experiences and growth, the excitement around them has died down as it turns out their business models weren't a good fit for the complex and regulated insurance industry. These companies had access to cheap funding and were able to offer great customer experiences, but it wasn't enough to keep them afloat in the long run.

On the other hand, publicly traded P&C insurers are doing well and, I believe, are not lagging behind in terms of innovation. There are very good examples of insurers who have invested in the necessary technology and infrastructure, and have a strong data culture.

Great examples of AI adoption in insurance are Allstate, which invests heavily in AI and has used it in underwriting, claims and customer service; AXA which uses it for fraud detection >

MATEUSZ MAJ

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and underwriting; and Swiss Re which has implemented AI in underwriting, claims and risk management.

However, some companies struggle to embrace digitalisation and innovation. This could be due to a lack of resources, resistance to change, regulations, or a focus on traditional business models.'

From the perspective of a typical consumer, what are the potential benefits of AI use in the insurance industry?

'AI in insurance offers benefits such as improved customer service with AI-powered chatbots and virtual assistants, faster claim processing, personalised pricing based on data analysis, and better fraud detection. These advancements result in improved customer experience, faster payments to policyholders, more accurate pricing, and lower fraud losses for insurance companies. I think it's beneficial both to insurers and all the customers.'

In the past, there have been instances of unethical practices such as price walking within the insurance

industry. Is there a risk that the use of AI could exacerbate these issues, or is it a solution to them? And are there any other challenges you see in the implementation of AI in the insurance industry?

'The use of AI in the insurance industry can both exacerbate and solve ethical issues. On one hand, AI can be used to automate unethical practices, such as discriminatory pricing or fraud. On the other hand, AI can also be used to identify and prevent unethical practices, as well as promote fairness and transparency in the insurance industry.

For me there are several important challenges in the implementation of AI. Firstly, bias and discrimination. AI algorithms can amplify existing biases, leading to discriminatory practices. Fortunately, we have an existing non-discrimination directive that regulates that. The EU is also working on a new AI-Act that should regulate the use of AI in Europe.
Secondly there is often a lack of understanding of AI among business and insurance industry stakeholders, including customers, regulators and insurance professionals. This also pertains to the third

concern: Data privacy. The use of AI in the insurance industry raises concerns about data privacy and security, as insurance companies have access to sensitive personal and financial information. Finally, integration with legacy insurance systems can be complex and time-consuming, requiring significant investment and expertise.'

In what ways can actuaries contribute to the development and implementation of AI in insurance companies?

'Actuaries are the superheroes of the insurance world! They use their maths and data analysis powers to help keep everything running smoothly. They're like the guardians of AI in the industry, making sure that it's used in a responsible way that benefits everyone. They're experts in risk assessment and they always keep the ethics of using AI in mind. Without actuaries, the insurance industry would be a wild, wild west of uncertainty!

On a serious note, actuaries will continue to play an important role in an AI adoption, in processes like: >

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- Risk assessment: Actuaries use statistical models to assess risk and make predictions about future events. These models can be used to inform the development of AI algorithms in the insurance industry.

- Data analysis: Actuaries are experts in analysing data and drawing insights from it. They help insurance companies make sense of the large amounts of data generated by AI systems and identify opportunities for improvement.

- Model validation: Actuaries are trained to validate and verify the accuracy of statistical models. They play a critical role in evaluating the accuracy and fairness of AI algorithms used in the insurance industry.

- Regulation: Actuaries have a deep understanding of the regulatory environment in the insurance industry and can help ensure that AI systems are designed and used in compliance with regulations.

- Ethical considerations: Actuaries are trained to consider ethical issues and can help ensure that AI systems are used in an ethical and responsible manner.’

Finally, what specific skills or knowledge do actuaries need to acquire in order to stay current with advancements in AI within the insurance industry?

‘Actuaries play a crucial role in the adoption and implementation of AI in the insurance industry. In order to effectively leverage AI to drive innovation and growth, actuaries need to have a diverse range of skills and knowledge.

First, actuaries need to have a strong understanding of technology, data science and machine learning. These concepts and techniques form the foundation of AI, and actuaries need to have a deep understanding of them in order to develop and deploy AI systems that deliver real business value. Actuaries also need to be proficient in programming in languages such as Python, R or SQL. It is critical for actuaries, as these languages are widely used in data science and machine learning. Finally, the knowledge of processing large amounts of data and cloud computing platforms will help to develop production-ready solutions.

Another key area is ethics and bias in AI. Actuaries need to be aware of ethical considerations and biases in AI and machine learning, as these can impact the accuracy and fairness of AI systems. They should be able to identify and mitigate these biases to ensure that AI systems are used in an ethical and responsible manner. Finally, actuaries need to have strong communication skills. They need to be able to effectively explain and interpret the results of AI systems to non-technical stakeholders, including customers, regulators, and other insurance professionals.

It looks very challenging, but actuaries who are able to stay ahead of the curve and effectively leverage AI to drive innovation and growth will be well-positioned for success in the rapidly changing insurance industry, and won't be replaced by the AI Actuary.’ <

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