Advanced analytics and cognitive computing for insurance

At a time of political, economic and regulatory challenges, technology is a driver and enabler for change in the London Market. Fraud prevention and compliance are making it vital to analyse massive datasets, while pressure from new competitors is driving the need to make the market easier to engage with, to improve expense ratios, and to develop innovative policies based on deeper knowledge of customer preferences. Insurers also want to increase automation, so they can execute more business with current resources.

To address these requirements, Northdoor can help insurers understand the immediate benefits of advanced analytics and automation solutions, and the future potential of AI and cognitive computing. With more than 25 years of experience in the London Market, we offer proven, practical approaches to designing and deploying analytics and cognitive solutions that deliver rapid return on investment for insurance businesses.

While AI and cognitive computing are on the path to becoming mainstream technologies, they are not yet widely used in the insurance industry. Many insurers are keen to understand the potential, but wary of acting as guinea pigs for untested solutions.

With knowledge of both the London Market and the latest technology, Northdoor offers practical advice on planning and executing a roadmap to cognitive computing. For a number of important use-cases, insurers can benefit immediately from advanced analytics and automation solutions that will quickly deliver payback, and develop a longer-term plan for cognitive computing as the technology becomes more established.

In addition to designing, deploying and managing solutions, Northdoor offers a comprehensive set of services to help you understand where you are today, identify the best opportunities for new solutions based on your specific business processes and organisation, and plan a phased deployment with clear payback at every step in the journey towards cognitive.

This paper outlines five key use-cases for advanced analytics and cognitive computing in insurance, explaining the potential solutions and their benefits.

1: Fraud monitoring

Fraud contributes significantly to insurance losses, with estimates ranging from 5 to 18 percent of claims costs. But traditional efforts to detect and prevent fraud are an even greater drain on insurance businesses, with inefficient claim processing and associated human error representing a large part of the total operating costs. Insurers typically use claims audit tools to discover areas of weakness within processes. Based on the outputs from these tools, insurers design targeted training programmes for staff, modify business rules and introduce task automation in an attempt to minimise leakage. However, audits have limitations: they analyse only a small sample of claims, and they always take place after the fact, when money has already changed hands.

Using advanced analytics and machine learning empowers insurers to extract insights directly from claims audits and insert them into critical stages of the claims process, including investigation, evaluation and settlement. This enables insurance firms to take action to reduce claims leakage before pay-outs have been made.

Equipped with historical data, machine learning solutions can automatically flag all claims with high probability of resulting in leakage (whether due to fraud or simply misinterpretation). This allows insurers to route suspect claims through more experienced claims adjusters, and ultimately minimise the aggregate leakage for the portfolio. Machine learning also provides deeper insights into the root causes of leakage, feeding these insights back into the process to further improve detection.

Machine learning techniques empower small audit teams to extend their reach by embedding their knowledge in a predictive model that can be applied much earlier in the claims process. This enables insurers to make the breakthrough from reactive to proactive claims leakage management – potentially delivering enormous savings. Automation also speeds the processing of non-fraudulent claims, cutting operational costs, and improving customer service for greater competitive differentiation and better customer retention.

2: Improving compliance

As data volumes grow, and as regulations become stricter and more complex, the cost and difficulty of proving compliance are rising. Existing manual approaches to compliance are unlikely to scale to future demands. The good news is that advanced analytics and machine learning algorithms are already available to help insurers review, analyse and assess compliance-related information, whether structured or unstructured. By understanding the context around data, cognitive solutions can automatically classify data and highlight potential problem areas for deeper analysis by humans.

The ability to analyse unstructured information opens up a number of interesting new possibilities for insurers. For example, monitoring and understanding interactions between customers and sales agents can help improve controls over mis-selling of insurance products.

3: Personalisation of insurance policies

Customers are keen to tailor insurance policies to their precise needs, which presents a new challenge to established insurance businesses. A key difficulty for businesses accustomed to selling a standard portfolio of products to large numbers of customers is to understand precisely what each individual wants. Naturally, this problem of scale is more easily addressed with technology than with human resources. Advanced analytics solutions enable insurers to gather data for analysis from multiple sources, helping them to build up a more detailed picture of their customers that can be used to model and anticipate their likely future requirements.

Cognitive technologies in the form of automated agents can empower customers to self-select the right policy options for their needs by typing or even speaking the answers to conversational questions. In this way, even complex, highly tailored policies can be sold to a mass market of consumers without requiring insurers to employ armies of salespeople. In addition to making the process smoother and faster for customers, these new technologies boost efficiency and cut costs for insurers.

Together with deeper process automation, advanced analytics and cognitive technologies can help insurers understand their customers better, tailor services accordingly, execute business more efficiently and beat competitors to new opportunities.

4: Improving customer engagement

Building on the personalisation of policies, new technologies can increase the automation of customer sales and service interactions while simultaneously increasing customer engagement. Using advanced analytics to build a deep understanding of customers can transform relationships by accelerating interactions and enabling fully personalised services. For example, customers and prospects can use natural language to get the information they need from an automated assistant that knows their full history of interactions with the company. And if those customers and prospects prefer to interact with a human, the same information and analysis can be made available to call centres, helping customer service representatives offer the best advice at high speed.

By helping insurers understand what their customers are looking for each time they make contact, advanced analytics and cognitive solutions strengthen the impression that insurers really know and care about their customers' issues, enhancing loyalty.

5: Boosting competitiveness through automation

Processing and managing large – and growing – volumes of data is a significant contributor to high operational costs for insurance firms. Intelligent process-automation solutions can take the strain off human resources, applying adaptable business rules to process information automatically wherever possible, and involving human decision-makers for any exceptions. Improving the speed and efficiency of routine information processing in this way also frees up skilled human resources to focus on product, service and process innovation as key drivers of competitiveness.

Recognising that machines excel at routine tasks and that algorithms learn over time, insurers should focus their first steps towards automation on those business processes or assessments that are most widely understood. Once the capability is established, and as cognitive technologies improve over time, insurers can move to address more complex and higher-value processes.

Take the next step

With deep experience of both the London Market and the latest analytics and cognitive technologies, Northdoor can work with you to assess the potential transformational opportunities and associated business value. By identifying priority use-cases for your organisation, we can help define the high-level benefits case, the starting point and the roadmap, and then run proof-of-concepts to demonstrate the likely ROI.

For more information or to book an assessment, please visit northdoor.co.uk