



POINT OF VIEW

# The dawn of the age of AI in insurance

AI use cases and challenges to adoption

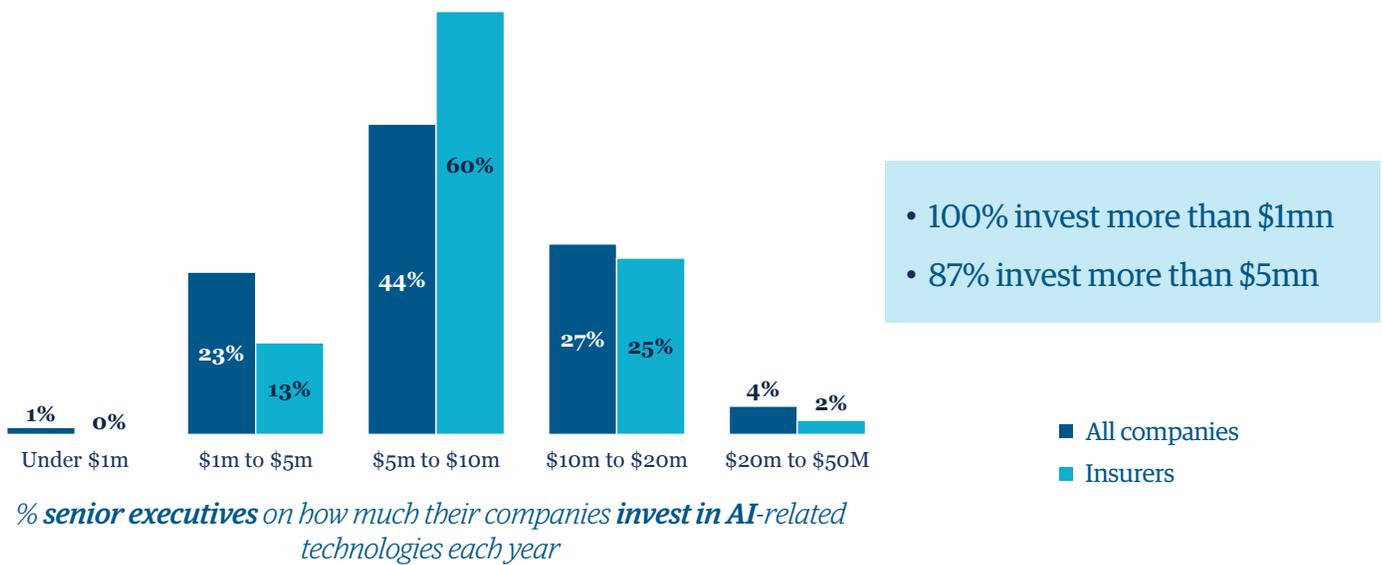


*Artificial intelligence (AI) will change the face of the insurance industry over the next five to ten years. By automating routine tasks and augmenting decision making, AI will enable smarter risk selection and pricing decisions, root out fraud, settle claims more quickly, produce more accurate reporting and forecasting, and - most important of all - radically transform the customer experience.*

## AI lift off

As insurers increasingly recognize its potential, attitudes toward AI have changed dramatically over the past year. In Genpact's second [AI 360 report](#), we found that AI adoption is accelerating rapidly among insurers, with 87% of carriers investing more than \$5m in AI-related technologies each year. This is more than both banking (86%) and consumer goods and retail companies (63%). Plans for AI are becoming more extensive, and all our respondents expect to adopt AI within the next three years. Figure 1 shows the scale of AI investment from insurers.

We explore the rise of AI across the industry, the use cases that will revolutionize claims and underwriting, and how you overcome the challenges when implementing this game-changing technology.



Source: 2018 survey of 52 senior executives from the insurance, conducted by Wakefield Research in association in association with Genpact

*Figure 1: Insurers' investments in AI-related technologies each year*

## Claims. From customer pain to customer gain

With its pivotal role in retaining customers, insurers are investing in AI to transform the customer experience by freeing up the time of experienced claims staff to focus on customers and making the process as frictionless, quick, and easy as possible. Add in the benefits of more accurate settlements, reduced loss adjusting expense, and more sophisticated fraud and subrogation detection, and it's easy to make the case for investment. Figure 2 shows where AI is generating business benefits for insurers both today and those forecast by the end of 2021.

There have already been some notable successes; in 2017, Lemonade used a chatbot to settle a claim in three seconds - a thousand times faster than its quickest claims adjuster.

In the longer term, the sky's the limit. Imagine a future in which you have a car accident and the car reports the claim for you. The sensors in your car will tell your insurer the nature of the damage and even how much the repairs will cost. Your insurer can then arrange a mechanic to start the repairs straightaway.

Similarly, if something goes wrong at home, such as a water leak, sensors connected to the internet can switch the water off remotely, minimizing damage and reducing the cost of a claim.



*Where is AI generating benefits for your business today and in the future?  
% senior executives*

Source: 2018 survey of 52 senior executives from the insurance, conducted by Wakefield Research in association in association with Genpact

**Figure 2: The impact of AI today and in the future**

## Putting the AI in claims

AI can be applied across the length of the end-to-end claims process (figure 3).

### Automating the first notification of loss process

If insurers are notified of a claim via email, it can contain data in different formats, such as text, PDFs, and images. Natural language processing, a form of AI, can ingest this data and then structure it so that it can be analyzed to triage claims, flag liability issues, identify recovery opportunities, and detect fraud. Not only does this speed up the claims process for customers (especially useful when dealing with seasonal spikes), this data also lays the foundation for advanced analytics.

### Assessing damage using computer vision

By processing visual information and interpreting data, computer vision can build a detailed picture of damage

to vehicles involved in auto accidents. The insured can take a photo of the damage and upload it as part of their claim. Applying computer vision to the photo then estimates the cost and extent of the damage, before triaging the claim.

Its application is being extended to analyzing imagery available from the scene of an accident, such as onboard cameras or street surveillance, to speed up the adjudication process and determine who is at fault based on measurement analysis, and road and traffic conditions.

### Detecting fraud

Given the scale of fraud against the insurance industry (estimated to be more than \$30 billion every year in the US alone) AI can have a big impact on insurers' profitability and reduce customer churn from increased premiums. By analyzing data from a wide range of sources including previous claims, customer information, and social media, AI can build predictive models to identify, score, and prioritize possible cases of fraud.

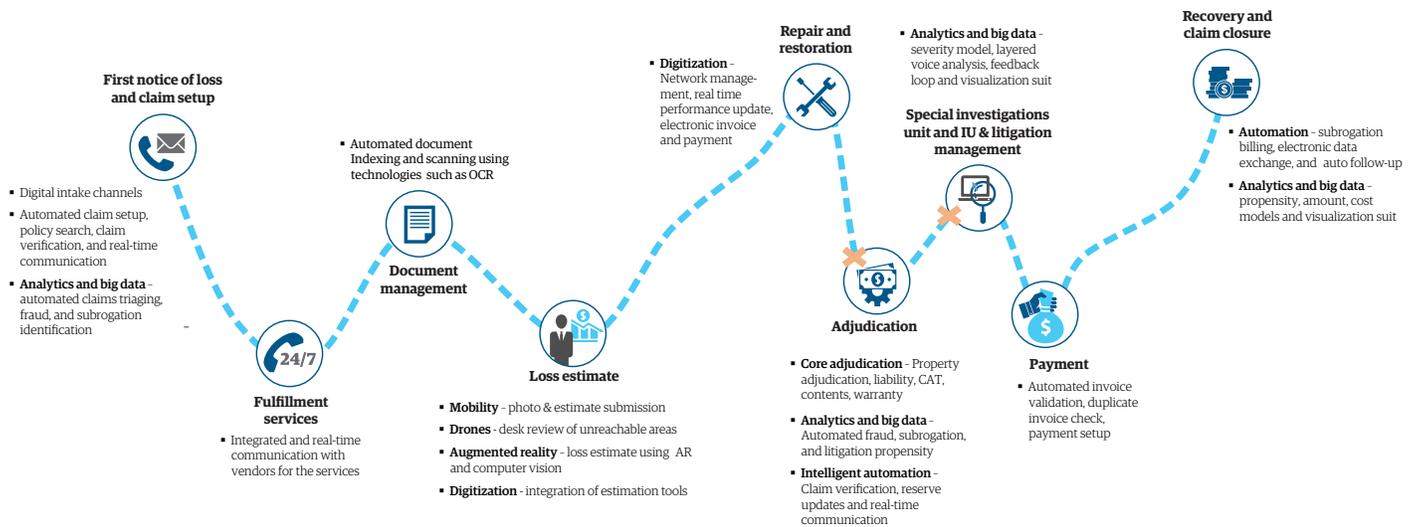


Figure 3: Digital solutions across the claims lifecycle

## Subrogation

AI can play a key role in automating the identification of subrogation potential in a claim. Natural language processing capabilities can extract knowledge from claims notes and use this to predict subrogation opportunities.

## Opening more channels of communication

The conversational AI used by chatbots and smart assistants like Alexa and Siri offers customers more choice in how they engage with their carrier by dealing with routine enquiries such as verifying coverage and updating policy details. Insurers are also investing in the future voice skills to collect claims information so they can continue to free up the time spent on dealing with routine enquiries.

Insurers should approach chatbots with caution, though. Our report flagged a disconnect around their use, with 86% of senior executives predicting customers will prefer to be served by a chatbot by the end of 2021 but only 15% of consumers agreeing. Their success will depend on

how well they're integrated into the overall customer experience - a chatbot may be welcome when changing an address but not for more emotive interactions such as reporting a burglary.

## Underwriting. From pool to personal

AI will redefine how insurers select and price risks, allowing customers to be assessed as individuals rather than in a pool of similar risks. For instance, in auto insurance, premiums will be calculated based on how much you drive, where you drive to, and how safe you are behind the wheel. With contents insurance, insureds can use connected devices such as fire alarms or a Ring doorbell to prevent losses occurring and obtain a more competitive premium.

Sharing information this way blurs the line between the insurer and policyholder and relies on the customer allowing the insurer into their car or home so risks can be more proactively managed.

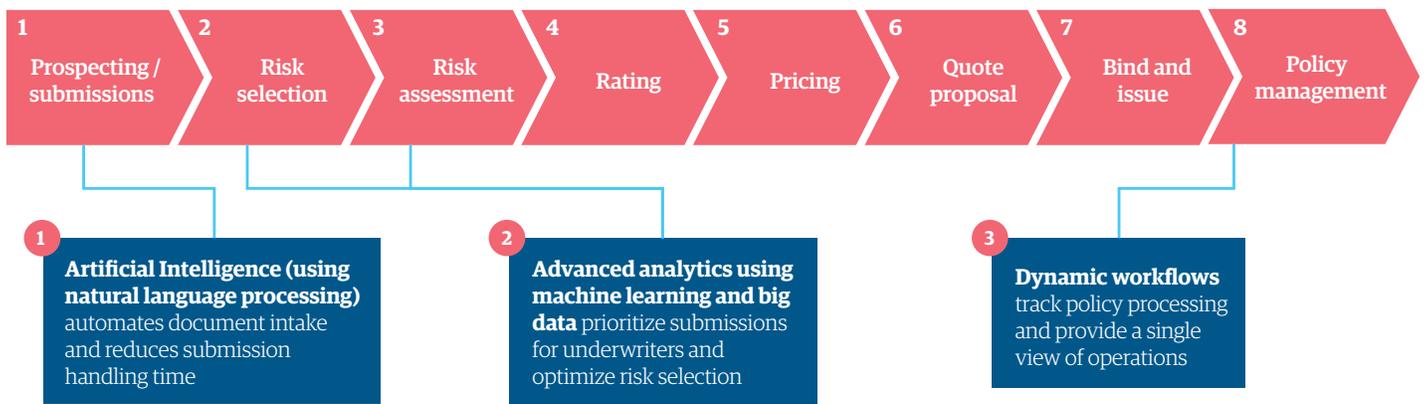


Figure 4: Reimagining the underwriting process with digital technologies

## Applications of AI in underwriting

AI can be applied throughout the underwriting cycle (figure 4).

### Making insurance easy to buy

Many insurers are focusing their AI efforts on improving the sales experience. As a result, slick, easy-to-use mobile interfaces with minimal questions are becoming more common for straightforward insurance products such as home or car insurance. Within a few years, AI and data analytics could make it feasible for more complex commercial lines insurance to be sold in the same way, as insurers integrate more data sources into their operations, taking the onus off the customer to provide underwriting information.

### Assessing risk

Computer vision is changing the way insurers can assess risks. For example, they can use drones to take aerial imagery of a house or facility from which they can create a 3-D model and work out how big the building is, how many windows it has, the likelihood of it flooding, and so on. Alternatively, an insurer could ask potential customers to upload a photo of their cars so they can check for damage, the license plate, and the location where the photo was taken before issuing a policy.

### Processing submissions

As in claims, AI's natural language processing capabilities has the potential to remove tedious,

time-consuming manual work from the underwriting process. AI can automatically extract risk-related information from emails and the attached submission documents in various formats.

The same capabilities can be extended to other downstream processes in underwriting (such as risk selection, quote/rate preparation) and policy servicing (endorsements).

## The hurdles to AI adoption

It's hard to over-emphasize how much AI will transform insurance, but it won't be an easy journey. AI can be difficult to implement if you don't have the right volumes of data, the right systems, or the opportunities and skills to analyze AI outputs. Insurers must invest in "bilingual" workers who are fluent in both technical insurance knowledge and technology.

### Employees' changing attitudes to AI

Insurance professionals work with a lot of vital technical knowledge in their heads. The challenge is how to augment this expertise by integrating AI into human decision making and gain your workforce's acceptance that this is a better way of working.

Attitudes are already changing. Our AI 360 research showed that internal pushback has dropped sharply - 58% of insurance senior executives reported no resistance to AI adoption, compared to 21% in 2017. The realization is growing that AI makes people's jobs easier, relieving them

from the mundane, manual, time-consuming tasks to focus on higher-value work and providing them with insights to make better decisions.

A combination of technology and human expertise means more profitable underwriting, more effective claims handling, and happier customers.

## Privacy concerns

AI requires huge amounts of data to train its algorithms. Fortunately, insurers are awash with historical data that can be put to work in areas such as estimating repair costs in auto claims. But what they also need to reap the longer-term benefits of AI is access to people's personal data, such as a telematics black box in a car, or connected devices in homes.

What's unknown is how much access customers are prepared to give insurers into their lives in return for a cheaper premium. In our research, 54% of consumers are comfortable with companies using AI to access their personal data to improve the customer experience, up from 30% in 2017. But insurers must stay focused on protecting data and being transparent on how it's used.

## Integration to core systems

The ability to integrate with the existing core systems of insurers is a critical requirement for the successful adoption of AI solutions. Solutions should offer a broad set of integration capabilities to connect with these core systems across various technologies.

## Building an insurtech ecosystem

With the explosion in the number of insurtech startups promising to revolutionize insurers' operations using AI, insurers must select partners that have delivered tangible results and satisfactory ROI. This should be driven by the customer experience that the insurer wants to design and the data that's available for the AI solutions to work with.

## Developing a skilled AI workforce

AI requires specialists to implement, manage, and maintain it. But attracting AI expertise into an industry not known for being at the cutting edge of technology is a challenge, and insurers will need to find creative ways to attract high-level talent and invest in re-skilling their existing workforce. At least insurers are making progress in this area; in our report, 63% of senior executives said their companies are already providing re-skilling options, higher than in industrial manufacturing (37%), retail (44%), and banking (50%).

AI centers of excellence are also being launched to consolidate AI expertise.

## The future's bright with AI

There is no quick-fix to the challenges we outline here, and this is sometimes at odds with the pace of technological change we're witnessing. Some insurers still think of AI as too futuristic or lack a practical framework to progress with AI implementation. The reality is that if you haven't started carrying out proof of concept projects, you're already falling behind.

AI is on track to change the insurance industry completely, building seamless experiences across the front, middle, and back office. Within a few years, customers will arrange insurance in minutes with a selfie or a photo of their homes. Their cars will report claims for them, their homes will signal that they're flooding or on fire. AI will notify insurers, arrange suppliers, and pay claims. Everything will be automatic, silent, and seamlessly connected.

This new future will lead to an increase in trust between insurers and policy holders. Insurance will move away from being just a financial transaction to one where the insurer is actively managing risks and protecting customers and their families.

The speed of change is unprecedented, but, as our report shows, insurers have a clear understanding that adopting AI is key to their survival. Whether it's by working with insurtechs, creating business subsidiaries to experiment with AI, or bringing it into the core business, the insurance landscape will change forever.

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## About Genpact

Genpact (NYSE: G) is a global professional services firm that makes business transformation real. We drive digital-led innovation and digitally-enabled intelligent operations for our clients, guided by our experience running thousands of processes primarily for Global Fortune 500 companies. We think with design, dream in digital, and solve problems with data and analytics. Combining our expertise in end-to-end operations and our AI-based platform, Genpact Cora, we focus on the details - all 87,000+ of us. From New York to New Delhi and more than 25 countries in between, we connect every dot, reimagine every process, and reinvent companies' ways of working. We know that reimagining each step from start to finish creates better business outcomes. Whatever it is, we'll be there with you - accelerating digital transformation to create bold, lasting results - because [transformation happens here](#).

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