

AVANADE'S TECHVISION

The insurance industry
meets artificial intelligence



Avanade's TechVision: The insurance industry meets artificial intelligence

In our [Technology Vision](#), Avanade revealed an economy that will be permeated by artificial intelligence (AI) in just a few years. Once the domain of sci-fi thrillers, AI has become a reality and is already beginning to add value to businesses, as well as becoming more affordable and accessible.

AI encompasses a broad collection of technologies and processes across intelligent automation, Robotic Process Automation (RPA) and physical automation. Intelligent automation refers to computers that can perform tasks that only humans used to be able to do, such as object and speech recognition, and natural-language processing. Included are machine learning, bots and digital assistants.

RPA is the ability to mimic human actions through technology for processing a transaction, manipulating data, triggering a response and so on. Physical automation refers to the use of physical robots, equipment and devices such as autonomous machines to perform and automate tasks like manufacturing production lines.

In the insurance industry, AI technologies are already being used to optimize claims processing and help customers answer questions. As the technologies evolve, the pace of change is expected to increase exponentially as advances start to reinforce themselves.

Here we look at five key aspects of the impact of AI on the insurance industry: New User Experiences, Augmented Workforce, Platform Economy, DesignOps and Digital Ethics.

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New User Experiences: Create simpler, more human-like interactions

Few would argue that the insurance industry has struggled to create an exemplary customer experience at scale. Evaluating and managing risk in the real world is a complex mix of regulation, nuance, subjectivity and humanity.

As AI evolves, the systems insurers use to support their customers' experience will become more personable. Natural-language interfaces and agent bots that advocate and act for the customer, their schedules and their priorities are just a few ways the user experiences will change.

Automation will also provide insurers with opportunities to improve the customer experience by simplifying processes.

>> **Related reading:** [Insurance sector tunes into artificial intelligence](#)



Augmented Workforce: Empower your employees to be more effective

As expectations of more natural user experiences and business performance increase, the tools insurers provide their workforce must keep pace. That's particularly critical as the industry struggles to close knowledge gaps resulting from two key trends: an aging workforce that is starting to retire, taking with them many years of accumulated knowledge; and a huge shift in the types of problems employees are expected to grapple with.

Precision and accuracy alone used to be the goal: how many active policies, how much commission paid. Today employees are also addressing more human-like insurance concerns: What events (natural, personal, professional) are likely to happen? What are appropriate responses to a customer's current situation? What might be interesting to them? How do people in various social networks respond to insurance issues?

These are questions looking for relevant responses, not precise answers. Empowering and augmenting workforces with AI-driven tools and contextual information, whether hard numbers or subjective insights, supports human decision-making at every turn, from strategic business planning to customer services.



Platform Economy: Embrace change to tap into evolving customer desires

According to [Accenture's 2017 Global Distribution & Marketing Consumer Study](#), seven in ten consumers around the world welcome robo-advisory services, without human intervention, for banking, insurance and retirement services. That may not be surprising since insurance products and processes are often viewed as hard to understand and manage. Customers seem increasingly willing to switch to a more on-demand process that makes things easier and more personalized.

To provide those kinds of customer experiences, companies like Lemonade, esurance and Amazon are using their platform approach to redefine the interaction between insurer and insured. For more traditional insurers, the Platform Economy presents them with the opportunity to leverage emerging ecosystems, like connected car, smart home, etc., to more closely tap into customer desires and insurance needs.

>> Related reading: [How artificial intelligence could help make the insurance industry trustworthy](#)



DesignOps: Push the envelope

In the way that television was not just radio with pictures, email was not just a faster means of sending letters to family members and tweeting is not just succinct email, interacting with AI will not just be a smarter “clippy.”

Thoughtful, user-centric purpose and design, in the guise of voice and sensor input, responsive design and bots, is needed because insurers will be engaging with customers at a speed and scale that wasn't possible before. Companies that continue to apply design principles and development approaches that are optimized only for existing technology will be left behind.

It is time to start questioning long-held beliefs and ideas about “the way things work” in the insurance industry. Challenge the most stridently held beliefs to see where innovation can take hold. Start small by focusing on projects that can make a big difference, quickly. Explore chatbots, process automation and augmented reality, leveraging both design thinking and modern engineering principles like agile and DevOps – what we call DesignOps – to push forward.



Digital Ethics: Protect trust in the AI-first world

Insurance carriers obviously have a major role to play in protecting organizations against consequences arising from AI. Hard-built reputations can collapse in the blink of an eye if the intelligent systems that insurance organizations use to run their business result in unanticipated damage to privacy, brand, equipment or person. It is impossible to know all the potential consequences, but carriers will need to clearly understand the interplay of risk, design errors, negligence and poor ethical judgment across the AI spectrum to protect their customers and themselves.

Insurers will need to consider internal digital ethics as well. Trust is the foundation of the insurance industry, but in an AI-first world, we will see the emergence of new risk and exposure that will challenge the trust relationship. Insurers, for example, are now developing products and services around AI that involve continuous monitoring of confidential operational business data, individual driving habits, personal exercise and even activity in the home. As the carrier becomes more integrated with the day-to-day life of the insured, they themselves become a potential source of damage or ethical misuse. Carriers will need to protect and secure the flow of this highly sensitive data. They will need to keep in check the advantage that comes from possessing intimate and comprehensive knowledge about the insured.

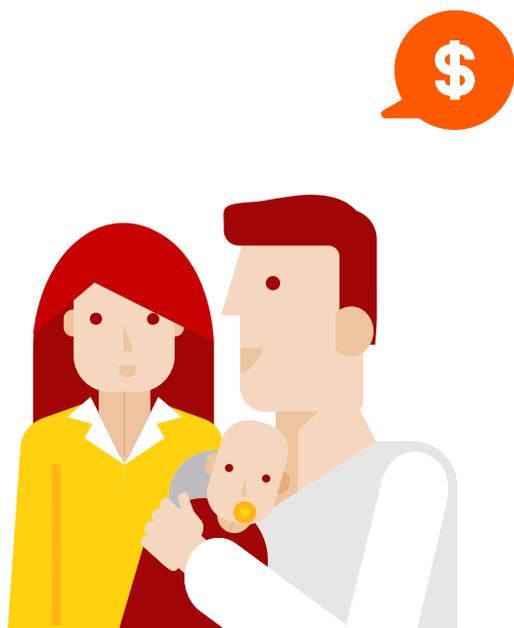
Carriers have an additional part to play in this discussion. The notion of acceptable risk, liability and compensatory damages will evolve with AI. Carriers are well positioned to help people come to terms with this by creating, for better or worse, a value framework around AI activities. The now classic example is of self-driving cars that can judge multiple collision-avoidance scenarios right before a crash. Ultimately, one of the scenarios must be selected. But if damages still occur, what does the liability look like? Are we apt to see large settlements if a successful corporation is made liable rather than, say, a teenage driver exercising poor judgment?



Remember, this example does not describe something that “failed,” but rather a choice that was informed, but not actually made by a human. Is there a “greater good” argument to be made that as a society we may need to accept certain individual damages at the cost of safer roads overall? People who want to take advantage of this new technology may need to adjust their expectations of what risk is acceptable and what is considered negligent or unethical.

Not all AI issues will be this dramatic, of course, but by thoroughly understanding the topic, carriers can help articulate and quantify many of the costs and benefits across the spectrum, from trivial to catastrophic. All insurance organizations should embark on a [program of digital ethics](#) to develop an understanding and perspective of how the characteristics of what are expected to be self-evolving systems should be managed.

>> **Related reading:** [Navigating ethics – a new priority in a digital world](#)





Conclusion: Get ready for the AI-first world

Insurers are playing catch-up compared to some other industries when it comes to AI. There is a lot to gain from an AI-first world, but there is also a lot to lose if AI is not embraced and well understood by the industry.

Here are five suggested strategic actions for insurers as they approach this new opportunity:

- 1. Leverage AI to deliver effortless, seamless experiences** to wow and please your customers.
- 2. Allow AI into the workforce**, harnessing it to automate and add personalized context to each customer interaction.
- 3. Tap into new opportunities in the Platform Economy** to leverage emerging ecosystems and deliver on new customer expectations.
- 4. Keep consumer needs in focus and use a DesignOps approach** to help you build the engaging human experiences made possible by AI.
- 5. Step forward quickly, but do so with caution.** We can't possibly anticipate all the effects AI will have, so be sure to put in place a digital ethics framework.

For more insights from Avanade's Technology Vision, please visit:

www.avanade.com/techvision.

North America

Seattle
Phone +1 206 239 5600
America@avanade.com

Asia-Pacific

Singapore
Phone +65 6592 2133
AsiaPac@avanade.com

Europe

London
Phone +44 (0) 20 7025 1000
Europe@avanade.com

South America

Sao Paulo
AvanadeBrasil@avanade.com

Africa

Pretoria
Phone +27 12 622 4400
SouthAfrica@avanade.com

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