



Automation at scale is driving transformative change across insurance

Advances in robotics, cognition, artificial intelligence, and machine learning are ushering in a new era of automation. Machines can now match or outperform humans across a range of activities in a number of industries, including insurance.

While the promise of automation has been around for years, the pace and the extent of its adoption in the workplace has significantly picked up over the past 12 months. For an industry that barely earns its cost of equity, automation at scale represents a massive competitive advantage for businesses that can get it right. (See our recently published article on the benefits of automation at scale, <http://www.mckinsey.com/business-functions/digital-mckinsey/our-insights/the-next-acronym-you-need-to-know-about-rpa>.)

McKinsey recently moderated a panel discussion on automation at scale in insurance. The panel consisted of Alex Bentley (director of Corporate Development, Blue Prism), Edwin Van Bommel (chief cognitive officer, IPsoft), Eric Musser (managing director, Robotics and

Workforce Intelligence, Pega) and Max Yankelevich (CEO and chief architect, WorkFusion) and was moderated by Brandy Smith (McKinsey partner who leads our automation at scale work).

Edited excerpts from that conversation follow:

How is automation at scale transforming the insurance business?

Max Yankelevich: Fundamental breakthroughs in quantum computing have already happened, but we're now seeing them cross into the mainstream. Machine learning is a good example. Most insurers use people to handle first notice of loss, basic investigation, and data entry. Machines monitoring humans as they perform their computerized tasks can actually develop a cognitive understanding of how to process documents, automating 50 to 100 percent of this work in some instances. The impact is very real.

Eric Musser: We're all familiar with machine-learning engines on websites like Amazon, which regularly serve up targeted offers to customers. We're now taking that model into insurance back offices for policy-application review and approval processes, for example. People often make different decisions with similar data, and this inconsistency points to an opportunity. In addition, the average user in the back office interacts with many different types of technology to get their job done, and this naturally raises the notion of using robotics to integrate and automate these systems. We are now exploring how to automatically create rules, centralize them, and make them available to all applications across the organization.

What sorts of benefits can automation deliver?

Alex Bentley: We now enjoy the capabilities that allow you to unlock the potential from these automation technologies. Because the execution platform is far more agile and flexible, insurers can better manage constant changes in a complex legacy environment. Cost pressure is increasing, and insurers need to manage the cost to serve.

Organizations that adopt automation are able to reduce the cost to serve, be more responsive to the market, and address growth areas more effectively. So I think there will be winners and losers in that respect. Those organizations that embrace automation can drive tremendous step changes in their productivity, while those who do not will be left behind. So while it's not Netflix versus Blockbuster, I think anybody too late to the party will be significantly disadvantaged.

Max Yankelevich: In addition to improving operational efficiency and regulatory compliance, we often forget that automation can drive higher morale within your workforce, because you're freeing people up to perform higher-value activities instead of mundane tasks. A lot of employees' mindshare and budgets can be invested in new products, services, and new ways of serving

customers. Additionally, customer satisfaction improves, because we can accelerate delivery to our customers and improve quality through the consistency of answers and customer experience.

What sorts of tasks can advanced automation do today?

Edwin Van Bommel: The insurance industry is actually moving faster than a lot of us recognize. Let's take cognitive agents as an example. To illustrate what's driving their adoption, we need to understand the different things they can do for carriers.

First, it is natural-language understanding—particularly complex utterances, such as: “Can you please uncanceled my policy?” “I broke up with my boyfriend; he had many accidents with my car. Can I now get a lower premium?” Cognitive agents can actually understand the meaning as well as recognize emotions and sympathize with the person on the other end.

Second, it is running a process from the front end to the end of the line—emulating the interaction with a human being and immediately resolving the problem (for example, removing a person from an auto policy).

Next is upselling. Cognitive agents are now able to recognize an opportunity to offer extra coverage and forward the call to a human being, for example, or even conduct the conversation themselves.

Finally, it is the ability to learn on the job. This is what makes agents truly cognitive—it's like having a new employee. Less complex tasks, including a majority of customer calls (e.g., address change, billing statements) also present a significant opportunity for impact through automation.

Over the near term (e.g., next two to three years), where do you think automation will drive the most value in insurance?

Alex Bentley: When people mention robots, your mind immediately goes to cost reduction, and many organizations start there. However, organizations that think more broadly have enjoyed the most success. By far the biggest benefit we have seen is improving the quality of the customer experience and customer satisfaction.

For example, a UK-based company used robots to proactively identify customers who had been impacted by floods, work out a waiver for the next month's credit, and notify the affected customers that their payments had been waived. Addressing regulatory requirements represents another important application. Being able to respond to regulatory demands in a more cost-effective way enables carriers to focus on strategic long-term issues.

Eric Musser: Customer engagement is a critical area, but how do you provide consistent answers and experiences for customers across multiple channels? Today, we typically look at thousands of pieces of data for each customer, not just two or three. You need to respond more consistently to a customer who calls or visits your website 12 different times and has multiple products.

Artificial intelligence allows you to gather this information, start learning and pushing the right answer back to the customer. Analysis of call-center data shows that employees spend 30 to 40 percent of their time documenting transactions. In the back office, 20-30 percent of the time is related to documentation. Assistance from a personal robot could potentially reduce that documentation time by 80 percent. While the technology to automate 30 to 40 percent of a worker's activities already exists, carriers have yet to take full advantage of that.

What does “great” look like in advanced automation?

Alex Bentley: It's important to understand that this is not about implementing a single technology. It is not a project with a beginning and an end. This is a new way of working and a new capability that you are building within the organization. The companies that derive value from automation are those that build the right foundation. They establish the right process for identifying opportunities, apply different technologies, robust governance, the right operating model, and engage with IT and business. Taking a longer-term strategic view and building the right foundations are the main differentiators.

Edwin Van Bommel: First, driving process improvements from a customer experience and service perspective will improve a carrier's chance of success. Second is the ability to manage the loss costs or the loss ratio. With the right combination of cognitive and advanced analytics, organizations can actually drive that number, and the financial impact outweighs anything you can do on the expense side. For example, cognitive agents can listen to the tone of a customer's voice, assess the claim situation and decide on the right follow-up questions in real-time—preventing potential leakage in the claims process. Third is about the actual transformation. It is a business project, not an IT project. A good center of excellence (CoE) for automation is very much business driven and uses a combination of tools to drive the business agenda. Those experts in the CoE will control the parameters used in day-to-day business decisions by AI solutions.

Eric Musser: AI, robotics, and automation are important, but do not forget the overall transformation of your underlying systems. Many carriers are still sitting on green-screen and client-server applications, leaving you to interact with multiple third-party browsers and different generations of Java-based applications. Just adding robots on top of this legacy environment is not the entire picture.

Successful CIOs and business executives are the ones really driving strategy on all these facets, not just bolting on advanced technology. They are asking, “How do I transform the entire experience?” not only from an internal human-capital perspective, but from the external customer experience.

What do you see as the future of employees in the insurance industry?

Edwin Van Bommel: Carriers need to rethink the human element of their service, focusing on things that are too personal to trust a computer to handle. Much of what carriers do today is often serving as the intermediary in terms of data processing—an old way of doing things.

Max Yankelevich: The human touch will become something of a premium. When robots do most of the repetitive and mundane things, it becomes a higher-level experience when you're dealing with a human being. Activities requiring a high degree of human touch will not be automated. If you have a policy under \$25,000, you might be routed to a robot, but for a higher-value client, there might be a human agent. So the impact on human interaction is going to be high.

Alex Bentley is director of Corporate Development at Blue Prism; Edwin Van Bommel is chief cognitive officer at IPsoft; Eric Musser is managing director at Robotics and Workforce Intelligence, Pega; and Max Yankelevich is CEO and chief architect at WorkFusion. Brandy Smith is a partner at McKinsey and leads our automation at scale work.