

## Technology Change Agents and the Future of Auto Claims

Jason Verlen, SVP Product Management, CCC



Auto insurers are in the middle of a perfect storm. Performance is suffering as more sophisticated vehicles are proving costlier to repair. Rate increases, designed to help fund innovation and bring combined ratios closer to 100, will be tough for consumers to absorb when we consider inflation-adjusted wage growth has barely hit double digits in the last 40 years.<sup>1</sup>

Another external pressure for insurers is the changing consumer mindset. Consumers are now accustomed to driving experiences themselves, directing their interactions through their phone. This means companies must meet their demands for service delivery, which generally means self-service, until it doesn't. Then you need to be ready to deliver personalized service.

Lastly, the promise of advanced technologies, including mobility, AI, chatbots, and telematics, are finally ready for prime time. This readiness cuts two ways: the technology is finally able to help insurers perform better and deliver better consumer experiences; but, applying these technologies is new, generally not well understood, and can be disruptive.

So, how can these technologies address today's business challenges and fundamentally change the process in insurance? Let's look at that.

### Technology Change Agents

AI, the Internet of Things (IoT), and mobility will transform insurance. These three capabilities are recreating the world as we see it. And we know this because this is what we're buying in our personal lives. Phones, smart assistants, and the devices that let you turn on the lights remotely or through your voice; it's all IoT, delivered through mobility, run by AI.

So, what exactly is AI? Generally, AI refers to programs that are capable of learning to make decisions more like humans. At CCC we have a different view: AI is most powerful when you have machine learning and deep data and subject matter expertise working together.

<sup>1</sup> Jay Shambaugh, Ryan Nunn, Patrick Liu, Greg Nantz, Brookings. "Thirteen Facts about Wage Growth." September 2017. [www.brookings.edu/research/thirteen-facts-about-wage-growth/](http://www.brookings.edu/research/thirteen-facts-about-wage-growth/).

## How AI Transforms Business

There's a famous Google cat experiment. Google used visual analytics to train a computer to recognize a cat. It showed its computers millions of pictures of cats, told the computers that's a cat, that's a cat, that's a cat, that's a cat. Then it showed its computers a whole bunch of pictures that weren't cats. That's not a cat, that's a chair; that's not a cat, that's a projector; that's not a cat, that's a phone. Eventually the computer learned with a very high degree of accuracy what a cat was.

Now, this is not how most of us learned what a cat was, but don't underestimate the power of that experiment. AI is changing industry after industry. Here are some examples.

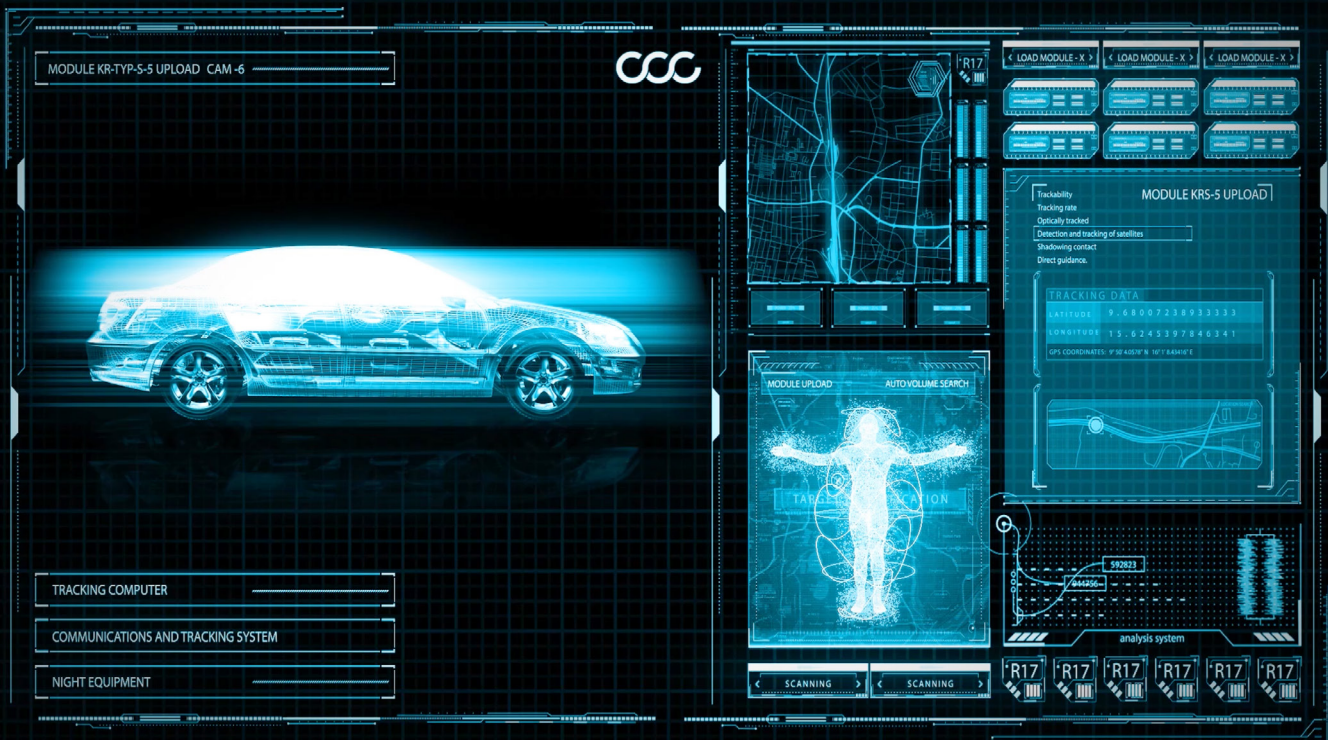
- Transportation. Self-driving cars, self-flying planes, predicting engine failure.
- Manufacturing. Computers or robots are controlling other robots on the manufacturing line, powerful enough to remove components off the line that fail quality tests.
- Network intrusion. Security through fingerprinting, facial recognition, etc.
- Finance. Portfolio management and optimization.
- Healthcare. Computers and AI now routinely screen MRIs and other scans for cancer. Cancer? Not cancer. (Similar to cat, not a cat.) And, they are as accurate as humans.

And even beer. Recently, I overheard a gentleman sitting next to me comment on how great the beer he was drinking tasted. The restaurant manager heard this and offered to explain why that was. As it turns out, some beer kegs today are instrumented with sensors and there's all kinds of advanced analytics running, including when the beer was first tapped, the kinds of temperature fluctuations the beer went through, and a number of other external environmental factors. The keg from which this glass of beer came, was fresh because the manufacturer recently called the establishment we were in and told them to pour out the old keg; they were sending them a replacement because the one they had was not going to be a good experience for the consumer.

Here's the point: the beer maker doesn't sell beer to consumers; they sell to restaurants and intermediaries. The interesting part of this story is they optimize the consumer experience with their AI and then the value worked all the way back up the chain. In this and the other examples above, AI is creating trillions of dollars of value and it is enabling all kinds of new experiences for people.

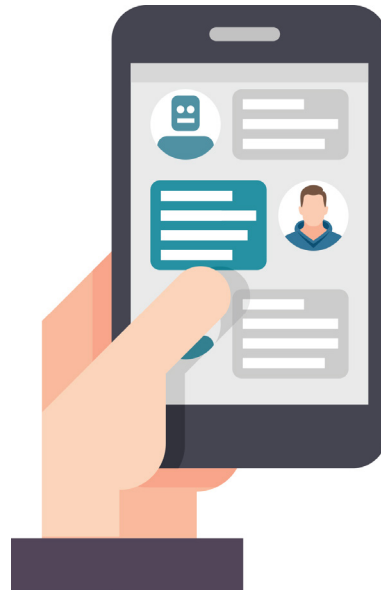
## AI in Insurance

It's now our industry's turn to put AI to work. What we're seeing in other industries is now happening in claims. At CCC we're in the process of injecting AI into key points in the claim process.



Here are a few examples of AI in claims:

- First, chat bots. The ability to have AI-driven conversations with customers at scale in real time to help guide them through the process when they have an accident.
- Second. Total loss prediction. Consumers are asked for one photograph, and from one photograph our insurance customers, with high accuracy, can make an initial estimation of whether their insureds' vehicle will be a total loss or not. How do we do it? Cat? Not a cat. Cancer? Not cancer. Total loss? Not total loss.
- Next. Damage detection. A series of photographs of vehicles after they've been in an accident are received. The technology can help detect where the damage is on the vehicle and show the location and potential severity of that damage using AI and heat maps.
- Virtual inspection. Instead of sending inspectors out to physically look at vehicles, where they can only do a certain number per day due to travel time, there is more of a movement to have them use photographs sent over the wire to review in a desktop environment. By injecting AI into the process, a typical estimator can likely write a lot more estimates in one day using this AI-guided estimating tool.
- Auditing. Information gleaned from photographs can help customers make an initial determination during the estimate audit process whether the estimate under review accurately captures damage to the vehicle as reflected in the photographs or if additional changes may be necessary.
- Estimating. Those same photos can be used automatically with AI to help estimators create an initial estimate by engaging with the estimator interactively.
- Lastly, it's not just about auto-physical damage; it's also about bodily injury. With telematics data, the principal direction of force and delta V can be determined, and with an assist from AI, make that information available to help insurers predict the likely injuries and their probabilities for vehicle occupants.



*Chat Bots*



*Damage detection*

## **AI Alone Won't Solve for Everything; Integrating AI into the Claims Process**

I've seen a lot of promising AI go nowhere. If you can't take AI and inject it into the process, into the customer experience, into the estimator experience, you have not accomplished anything. Remember the beer company; it's about the user experience, and if you get that right it drives the value all the way back up the chain.

## Powering the Consumer Journey

Imagine there has been an accident. The accident was automatically detected with AI and telematics data. By understanding the rate of change of the vehicle using sophisticated calculations, it is known that an accident has occurred. No photographs needed; AI and telematics come together to initiate a new claims process, unseating what has been in place for a hundred years. Customers won't have to call you when they get in accidents; you will know immediately that they have been in an accident and you will be able to contact them.

Next, a chat bot can be used to ask the customer for a photograph, and then AI will be used to help the insurer determine whether the car is likely to be a total loss or not. In this example, the vehicle is repairable. The same chatbot can request some additional facts about the accident, ask for some additional photographs, using technology to drive precision in the picture-taking process, because you can't just ask customers for photographs, you need to make sure you get the right photographs. Technology helps make sure that those photographs are useful for the targeted application of finding damage.

The chatbot can then ask the driver if he wants to file a claim. If he does want to file a claim and repair the vehicle the AI technology can interact with him and display various shops that are in the geographic area and have the skills to repair that vehicle. The claimant can see the ratings and rankings of these shops provided by previous customers who have repaired their vehicles there. Furthermore, the claimant can see available times to schedule an appointment to get the car in the shop. These experiences are very similar to those experienced in other domains, i.e. booking a restaurant using OpenTable®. It's important, and CCC is taking great care to build out the estimator experience in a similarly intuitive way.

So, if your organization is not already doing some of this, it's time to ask yourself where you are in the process. These technologies aren't going to slow down, but it doesn't mean you should run with scissors either. There are risks; this is a complicated industry.

## The Risks

For all its potential, there are risks with applying AI. Here are some key considerations as you embark on your AI initiatives.

- Too much faith in AI. Just because you have good AI does not mean you have the solution to the problem. You need to fuse the AI with the estimating logic with the regulatory process and with the consumer and estimator experience to really have a solution that's going to work. It is not just blind trust in AI.
- Transparency. How do people know that what the AI is doing is right or rational? By interacting with it and getting more comfortable. That's what those damage detection photographs and heat maps are all about. They are about the system showing all the participants that the correct damage has been identified. It is transparent.
- Trust. AI is new and there is likely healthy skepticism around it. But, as professionals interact with it, including those heat maps, and usually the heat maps are right, for example, this builds trust. If they interact with a total loss predictor and it has a high degree of accuracy, it builds up trust. You get the idea. As this trust builds, there will be less skepticism and people will be less likely to say the AI is wrong and more likely to ask themselves what the AI is seeing that they missed. When this happens, human data is training the data, and now AI is also trusted to guide human decision making. This is how an industry gets transformed.

The industry is at the tipping point; the technologies and process transformations described here are happening. Many of them, in one version or another, are being run by customers now. As the industry embarks on this massive-scale change that insurance has never seen, it needs to be thoughtful and purposeful. This is a once-in a lifetime opportunity; let's get it right.

©2018 CCC Information Services Inc. All rights reserved. CCC, the CCC logo and powering Forward are registered trademarks of CCC Information Services Inc.