



[Auto Physical Damage](#)

# AI and Its Impact on Automotive Claims

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For more than six decades, innovators have attempted to unlock the full potential of artificial intelligence (AI). Despite repeated attempts to advance its use, it wasn't until the past decade that the science finally caught up to expectations. Today, AI market projections are on track to reach \$500 billion by 2024. That dramatic growth has only accelerated over the last year due, in part, to the pandemic and a "new reality". Serving as a catalyst for digital transformation, COVID-19 has [fast-tracked AI adoption and acceptance](#). As insurers embrace AI and its ability to improve the claims process, they are [devoting a larger portion of their technology budgets](#) to AI-enabled solutions. In fact, according to one report, [87% of carriers](#) are now spending in excess of \$5 million annually on these technologies, which is more than in the banking and retail sectors.

## Over Sixty Years in the Making

While the use of AI may be new to the auto insurance industry, the science has been around for over a half-century. It was conceived in 1956, the same year that President Eisenhower authorized construction of the interstate highway system. We'll never know if AI pioneer [John McCarthy](#) imagined a future where "the science and engineering of making intelligent machines" would enable vehicles to eventually drive themselves down those new highways. However, we do know that decades after McCarthy coined the term "artificial intelligence," AI systems still struggled to deliver the significant impact once promised.

## Machine- and Deep-Learning Breakthroughs

Over the next several decades, interest in AI continued to grow. It wasn't [until the 1980s](#), though, that scientists moved beyond hard-coded algorithms to machine learning—a subset of AI that makes automation possible by generating predictions based on both data and learned experiences. Machine-learning algorithms can quickly review vast amounts of information, organize it, extract key data and make recommendations. Deep learning, a branch of machine learning that functions like the human brain, soon followed. By 2012, deep-learning

algorithms were powering [Google Street View](#), [Apple's Siri](#) and other popular applications. As [McKinsey & Company](#) points out, it's through machine and deep learning that AI can deliver on insurance industry expectations. "With the new wave of deep learning techniques, such as convolutional neural networks, AI has the potential to live up to its promise of mimicking the perception, reasoning, learning, and problem solving of the human mind. In this evolution, insurance will shift from its current state of 'detect and repair' to 'predict and prevent', transforming every aspect of the industry in the process."

## Unlocking the Potential of AI

AI-enabled solutions have opened up new possibilities for auto insurers and collision repairers. From detecting a car accident with [IoT](#) technology, to instantly processing a payment for completed repairs, the opportunities are endless. First on the list for most carriers, however, is using AI to automate the appraisal process and produce a "touchless" estimate. This can [improve efficiency, shorten cycle time and meet policyholder expectations](#) for a streamlined, digital claims experience. Now, thanks to these four trends, creating that experience is within reach.

### 1. Shifting Methods of Inspection

Prior to COVID-19, virtual estimating was reserved for low severity claims. However, the need for social distancing during the pandemic and changing consumer demands spurred the adoption of [virtual inspection methods](#). In April 2020, Mitchell data shows that the use of virtual, or photo-based, estimating more than doubled from earlier in the year. Just one year later, [LexisNexis Risk Solutions reported](#) that virtual claims handling has now "settled to a level of a little over 60%". This shift in method of inspection opened the door to the long-term aspiration of "touchless" claims and leveraging AI in the appraisal process. Over the last year, virtualization—considered the [first level of automation](#)—has resulted in estimate efficiency and consistency gains. From images, appraisers can complete approximately [15 to 20 estimates per day](#) versus three to four out in the field. This has prompted more carriers—nearly 70 percent according to [LexisNexis Risk Solutions](#)—to embark on the claims automation journey.

### 2. The Prevalence of Big Data

According to the [Center for Insurance Policy and Research](#), "The successes of AI are also being facilitated by the massive amounts of data we have today. The wealth of data we now create is astonishing, and the speed at which data is generated has only made data management tools like AI even more important." The property and casualty industry has always thrived on capturing, analyzing and interpreting data. Whether it's from mobile devices, automobile IoT sensors or other sources, this data gives decision makers the information necessary to personalize customer interactions and proactively address issues. When it comes to touchless estimating, though, data alone isn't enough. Access to a comprehensive library of vehicle, repair and historical claims information is needed—along with the ability to quickly interpret that information using AI. In the case of [Mitchell Intelligent Estimating](#), claim details and images are collected. AI then analyzes the data, comparing it to Mitchell's comprehensive library of vehicle and repair information that spans more than 30 years. From there, the machine-learning algorithms translate the output into component-level estimate lines for appraiser review and approval.

### 3. Human-Machine Collaboration

Just as humans continually learn and improve, so do machines. As highlighted in [Insurance Thought Leadership](#), "good machine learning systems involve feedback loops...By letting the machine know what happens on the 'real world' side of things, machines learn and improve"—no different from claims adjusters! Support for a

human-machine feedback loop is critical to automating the claims process and can lead to vast improvements in speed and accuracy. An appraiser's feedback helps teach the machine to make better decisions. As AI-powered solutions remove repeatable tasks, employees have more time to focus on complex claims that may require extra scrutiny.

#### 4. The Growth of Cloud Computing and Open Ecosystems

AI's dependence on data [increases the need](#) for cloud-based systems—like Mitchell's Program Freedom—that can access and aggregate vast amounts of information, making it available from anywhere. These systems help organizations reduce development and maintenance costs, enhance security and accessibility, and improve speed, reliability and scalability. Like cloud computing, open ecosystems are also vital to AI and touchless estimating. Open ecosystems allow AI to easily access data, analytics and software across platforms and providers, giving carriers the ability to create a cohesive, end-to-end claims experience. They also introduce flexibility and choice, reported [PropertyCasualty360](#). "Choice in data providers that can collectively drive better and faster decisions, and the choice in technology partners that best aligns with an insurer's claims experience, product lines, practices, and view of risk." Mitchell Intelligent Open Platform (MIOP) is a perfect example of how cloud-based solutions and open ecosystems are being used to automate the appraisal process. Through the MIOP, carriers can select the AI that best meets their needs. That includes AI algorithms developed internally, [provided by Mitchell](#) or delivered through third parties such as [Tractable](#) or [Claim Genius](#). With Mitchell Intelligent Estimating, the AI output is used to produce a partial or complete appraisal in Mitchell Cloud Estimating.

#### The Future of AI-Enabled Claims

By 2030, [McKinsey & Company](#) predicts that more than half of current claims activities will be replaced by AI-enabled automation. "Claims for personal lines and small-business insurance are largely automated, enabling carriers to achieve straight-through processing rates of more than 90% and dramatically reducing claims processing times from days to hours or minutes." With the science now ready to deliver on its 1950's promises, the auto insurance industry has reached a turning point. Carriers can either invest in AI or run the risk of being stranded on the side of the road. Ultimately, it will be those organizations that embrace this "new" technology to deliver a digitally driven claims experience that are best positioned to gain market share and consumer loyalty.



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