Auto Casualty

Key Trends in Big Data for Property & Casualty Industries

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The pandemic has changed the way we work. As a result, organizations have rapidly adopted digital technologies to better manage this new working environment, from automating routine process to artificial intelligence (AI)-based decision making. One thing most of these digital transformations have in common is that they all rely on the effective gathering and management of big data. The property and casualty industry has always thrived on capturing, analyzing and using data. The explosion of mobile technologies and internet-connected sensors are bringing with them enormous amounts of data that can be used to improve decision making and better manage risk. With the rapid digital transformation of our industry, smart organizations are finding ways to put this data to even better use, and the rewards have never been greater. While growth in big data analysis has been happening for years, right now there are some emerging trends and opportunities that deserve focus and attention across the entire industry. Here are three of those key big data trends in the property and casualty industry that I predict are going to be crucial to watch in 2021:

1. **Data Democratization** As organizations become more digitally enabled, it will be increasingly important to make access to big data available to everyone in the company in a format that is easily understood. We all recognize the value of data-driven decision making. Now think of the benefits of having a self-service data process where everybody has access to data without the bottleneck of having to submit a ticket to a data engineer in IT. Consider the value of having current-data-driven decision making happening within every team, rather than decisions being made based on guesses and assumptions in order to get things done on time. Data democratization makes data insights and knowledge safely available to the decision-makers who need them without requiring specialized analytical skills.The key to effective data democratization is developing quality self-service analysis tools. This can start with data visualization tools, and then progress to automated AI-driven data analysis engines that can generate real-time reports and easy-to-comprehend analytics. Additional value comes from tools that can filter the data and customize the visualization shared with each individual based on that person's role.As an example, Mitchell recently introduced a data visualization tool that enables both auto casualty and workers' compensation claims

organizations to analyze medical provider treatment and billing behaviors to identify irregular activities that may signal fraud, waste and abuse. One large insurance carrier was able to visually compare the charges of a group of providers across multiple counties and discovered a provider that was an outlier needing further investigation – an insight the claims adjuster might have missed without the visualization tool. Data democratization also enables changes to data ownership. One important area that will be increasingly affected by this change is the ownership of medical records. HIPAA may imply that patients own their own data, but **control** of that data still currently resides with the physician's IT department. As data access improves and cloud processes become prevalent, we'll continue to see a trend for patient data to separate from the provider and to have the patient be the one who manages record sharing. Along these same lines are new CCPA regulations from California that grant consumers robust data privacy rights, impacting organizations around the country that interact with California customers. "In 20 years, big data analytics will likely be so pervasive throughout the business that it will no longer be the domain of specialists," said Andy Monfried, CEO and founder of Lotame, a data management company. "Every manager, and many non-managerial employees, will be assumed to be competent in working with big data, just as most knowledge workers today are supposed to know spreadsheets and PowerPoint. Analysis of large datasets will be a prerequisite to almost every business decision, much as a simple cost/benefit analysis is today."

2. **Continuous Intelligence** It isn't just access to data that is important. As the pace of business increases, managers need to make real-time and near-real-time decisions that require to-the-minute understandings of current situations. Once data becomes directly available to the decision makers in an organization, the next step is to make that data as contemporaneous as possible.Continuous intelligence (CI) uses technologies such as augmented analytics, machine learning and optimization to reduce or even eliminate human intervention that can slow down the delivery of useful data. This lets decision makers react quickly to fast-changing circumstances, further personalize their interactions with customers, proactively fix issues before they become serious and ultimately improve the performance of the entire organization.The augmented analytics that make CI so compelling also have the advantage that they are not affected by the complexity of the data. It can deliver "data stories" out of mountains of big data to guide decisions and even offer suggestions and insights that human review couldn't have found. Operationalizing these services and making them part of intelligent workflows within your organization are key. Pharmacy services are an important example of what CI can offer. Using real-time data and predictive analytics, matched with a person's current drug prescriptions and history, a pharmacy can automatically block the dispensing of a drug that would be dangerous to a patient and alert an adjuster or case manager to intervene. With drugs like opioids, this kind of real-time CI capability saves lives. The research firm Gartner predicts over 50% of the new business systems will be using CI by 2022. "Continuous intelligence has a bigger impact on data and analytics teams than most of the other [current data trends] because it directly affects transaction processing, customer-facing, logistics, B2B and other operational systems."
3. **Cloud Management** As data volumes continue to balloon, it is increasingly important to use cloud-based systems to manage that data and make it available from anywhere. If businesses aren't already moving their data systems into the cloud, now is the time to make this change!Cloud environments for data management have several important benefits, including:
    - **Cost:** Using cloud-based systems lower the total cost of ownership and lets managers scale systems both horizontally (adding additional instances) or vertically (upgrade each system).
    - **Speed:** Having multiple instances in the cloud spread across multiple regions (and countries, if necessary) reduces latency between the data and the users, and increases processing power through distributed parallel processing.
    - **Reliability:** Redundant instances distributed broadly improves reliability and availability of data.
    - **Portability:** Providing data access through the cloud enables portable devices to work with enormous data sets, making them much more powerful and useful.

- **Deployment:** Enables containerized system structures, which make it easier and faster to deploy updates and new capabilities when ready.

Using the cloud for data management also makes it possible to incorporate AI to improve its reliability and efficiency. At a minimum, AI can manage routine monitoring and managing duties, allowing IT teams to focus on higher-value strategic activities. Going further, AI can help manage the data itself: identifying, cataloging and flagging data as needed. At Mitchell, we're aggressively moving our big data systems to the cloud, for all the reasons we've outlined above. One benefit none of us expected came when the stay-at-home orders were issued earlier this year, as our cloud-based systems made it possible for us to seamlessly move to remote working models and better serve our clients remotely.

If you're just exploring these big data trends now, reach out for help in setting a plan on how you can get there sooner than later. Of course, we'd be happy to help you navigate through next steps. Establishing and strengthening your data foundation will make a world of difference, and will make all your technology transformations much more impactful and effective.

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