ORIGAMI RISK

GET YOUR HOUSE IN ORDER FOR... AI

WHY INSURERS SHOULD CLEAN UP THEIR DATA TO MAKE WAY FOR AI

The use cases for artificial intelligence (AI) in insurance may be strong, but the barriers to getting it right are not insignificant. Implementing AI effectively requires expertise, financial resources, deep insurance knowledge, and strong change management leadership within an organization.

Getting your data in order is arguably the most pivotal and transformative step in preparing for AI integration. Data is the lifeblood that nourishes AI algorithms and empowers them to deliver accurate predictions and insightful patterns and to inform recommendations. It is the furniture and decor that fills the house, but it can easily turn into clutter if not properly taken care of.

TECHNOLOGY THAT MEETS THE DEMAND

Insurance IT budgets rose in the last few years for both internal and external technology activities[1], and most insurance companies have indicated either increasing or maintaining these spending levels.[2] The focus: improving customer experience, modernizing legacy applications, and expanding analytics capabilities — all with the potential to integrate AI into the insurance portfolio.[3]

Unfortunately, insurance companies may have a myriad of systems with outdated technology in place. These systems often don't communicate with each other, as data exists in silos, are expensive to maintain, and result in poor user experience.

The good news is that AI can help. There is no human equivalent to the speed at which AI can inspect large datasets, determine patterns, predict potential outcomes, and streamline processes through automation. This not only helps organizations keep up with claims demand but also with the development of new products and better risk management practices. When AI algorithms can better predict future claims and calculate associated risk, organizations can set more appropriate premium levels to not only avoid underpricing policies, which can lead to financial losses, but avoid overpricing as well, which can result in lost business.

ARE YOU READY FOR AI?

It's a broadly held sentiment across the insurance community that AI could help leverage data to not only improve the accuracy and speed of the decision-making processes but elevate the customer experience as well.

That's why 63% of data and analytics decision-makers at insurance companies report their organization is adopting AI, with another 24% planning to follow suit.[4] In fact, insurers around the globe are currently investing almost half of their resources into data, analytics, and AI[1].

The challenge is being ready to *fully engage the right AI technologies* for a maximized return on investment.

The insurance ecosystem involves many parties and a lot of data. Imagine this ecosystem as a house. Within this house there is a room for the policyholder, underwriter, adjuster, and every other operations and risk management collaborator needed in the policy life cycle. Each of these rooms is furnished and decorated, and as it often goes, the more a room is lived in (the more a relationship is utilized), the more stuff (data) accumulates.

While each of these data points is useful, data clutter can build quickly and impede progress. Unless the organization gets its house in order before AI technologies are added to the ecosystem, potential could be left waiting at the door.

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ADDRESSING THE COBWEBS

The Importance of Data Quality

It's estimated that between 83% and 92% of AI projects fail[5]. Why? Hiding in the corners of inefficient and ineffective systems is poor data full of nonsensical information and inconsistencies, like one claim on two policies or a single policy attached to multiple agreements. Like cobwebs, this poor-quality data can obscure the clarity sought through AI integration.

Simply put, good-quality data is accurate and complete, i.e., when the insured's information, coverage type, policy term, premium, deductible, coverage limits, and endorsements are clear and up-to-date in the insurer's system. Poor-quality data, on the other hand, is missing values, contains incorrect information, or inconsistencies. AI, particularly generative AI, has the potential to detect and analyze poor quality data, leading to automated data correction processes. However, this requires skilled specialists to train AI models.

The consequences of poor-quality data being used to train or operate AI models include:

- Underpricing or overpricing of policies due to incorrect risk assessments
- Inadvertent discriminatory practices
- Inefficient fraud detection
- Delays, mistakes, and inefficiencies in claims processing
- Incorrect assumptions about customers, leading to inappropriate marketing strategies and customer interactions
- Non-compliance with regulations and legal requirements, resulting in fines, legal actions, and reputational damage
- Reduced trust in the company's services

GETTING DATA ORGANIZED

Structured vs. Unstructured Data

Understanding the type of data you have is a crucial step when preparing to incorporate AI. This process involves data discovery, assessment, and categorization, and it lays the foundation for building effective AI models and systems. There are two main categories of data: structured and unstructured.

STRUCTURED DATA refers to information that is organized and stored in a predefined format, making it easy to search, analyze, and process. This type of data is typically stored in databases and can be readily categorized, sorted, and used to gain insights, identify trends, and make data-driven decisions more easily. Structured data is able and ready to be manipulated by AI.

In the insurance industry, structured data might include:

- **Policyholder information:** Name, address, contact details, policy type, coverage details, premium payments, etc.
- **Claims data:** Details about past claims, such as claim amount, date of loss, cause of loss, settlement amount, etc.
- **Underwriting data:** Information used to assess risk and determine policy eligibility, such as medical history, driving records, credit scores, etc.

UNSTRUCTURED DATA, on the other hand, refers to information that doesn't have a predefined structure and is not organized in a way that is easily searched or analyzed by traditional methods. This type of data is often in the form of texts, images, audio, video, social media posts, and other formats.

Being able to review your data and determine what is structured and what is unstructured is the first step in understanding what it takes to integrate AI into your core system.

MAINTAINING A CLEAN SLATE:
Data Discipline For Tomorrow's Insurer

Clean, structured data is key to a successful AI implementation and data transformation. And yet it's human nature to take shortcuts when under pressure, but the consequences of inserting data midstream can set an organization back in its digital transformation and AI implementation journey. Deep cleaning the house is a lot of work and requires a lot of resources. It's not something a company can afford to do on an annual basis.

Here are three practices that insurers can engage to maintain strong data practices:

1. Establish clear **data governance policies and procedures** to ensure that data is managed consistently across the organization. Include defined roles and responsibilities for data ownership, quality monitoring, and maintenance. These policies and procedures also should extend to third-party partners that filter in data through integration.

2. Provide **training to employees** who interact with the company's core system to ensure they understand the importance of data accuracy and the proper procedures for data entry and maintenance. Help employees understand how their initial time upfront can save them and customers time in the long run.

3. Conduct regular **data audits** to identify inconsistencies, inaccuracies, or outdated information. In addition, develop protocols to rectify the issues identified during these audits.

USE CASES FOR AI IN INSURANCE

Claims, Underwriting, Risk Mitigation

The difference between data collection and true digital transformation is analysis. Multiple layers of manual data processing make customers wait and employees frustrated as they try to make sense of complex spreadsheets and documents. Organizations can unlock the door to analytical insights when they use data and AI to drive activities such as underwriting and claims processing and influence decision-making. Ultimately, this will make an organization more adaptable to market conditions and more responsive to consumer needs.

To make these optimal analytical insights possible, insurers must first evaluate the technologies they have in place or the degree to which those technologies integrate with one another. Flexible, modern core systems enable insurers to not only access their data in real time but integrate third-party AI technologies quickly through custom application program interfaces (APIs) when it comes to claims, underwriting, and risk mitigation.

Claims

Claims processing is one of the most critical operations for insurers, yet one of the most often cited as a source of pain for customers.

In the first half of 2023, claim handling was involved in 70.9% of consumer complaints against insurers.[6] In fact, 87% of policyholders believe the claims experience impacts their decision to renew with their current insurance company.[7]

Delays in insurance claims can be the result of a variety of factors, from unstructured, incomplete, or inaccurate data, backlogs, or the complexity of the claim itself requiring additional investigation. When these delays are attributed to the insurer, they can impact customer sentiment and retention.

Claims processing that relies heavily on manual tasks rather than automated systems introduces delays due to the time-consuming nature of manual data entry, document verification, as well as claim review and assessment.

Insurance companies implementing AI into their claim validation processes have seen up to 99.99% improved claims accuracy, a 60% increase in operational efficiency, and a 95% improved customer experience.[8]

AI in the form of machine learning (ML) can be used for predictive analytics to speed up claim settlement timelines by completing the upfront evaluation of incoming claims to determine validity, severity, and next steps. While the algorithm may determine, based on the data and programmed conditions, that a claim requires agent review, smaller and more unremarkable claims would be eligible for straight-through processing, requiring no human intervention.

AI also can identify unusual patterns and anomalies in data that might indicate misrepresentations on insurance claims. This helps insurers prevent fraud and reduces the overall risk in their portfolio.

When AI is integrated into the insurer's workflow through the core system, automation can propel a claim forward. The predicted outcome for this given claim, actions taken, and actual outcome also become data points for future scoring and decision-making.

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Underwriting

AI can enhance workflow automation by adding an extra layer of data investigation and insight to routine underwriting tasks for standard applications such as data entry, evaluation based on the company's appetite for risk, policy verification, and administrative processes that move a new application through onboarding. Underwriters are then free to focus on more complex cases, making the turnaround time for these quotes quicker as well.

4 WAYS AI CAN ENHANCE UNDERWRITING

1. **Data Analysis and Predictive Modeling:** AI can process vast amounts of structured and unstructured data from various sources, including social media, internet-connected devices, and historical insurance data. By analyzing this data, AI can identify patterns and trends that humans might miss, leading to more accurate risk assessments and better predictive modeling for determining policy pricing.
2. **Risk Assessment and Pricing:** Properly trained AI-powered algorithms can analyze an individual or a business's risk profile comprehensively. This includes factors beyond traditional demographics, such as online behavior, purchasing patterns, and real-time data from connected devices. This enables insurers to tailor policies and pricing more accurately, reflecting the specific risk exposure of each prospective customer.
3. **Decision Support Systems:** AI-powered systems can assist human underwriters by providing recommendations and insights based on historical data and current trends. This helps underwriters make more informed decisions and reduces the potential for human biases.
4. **Customer Experience:** With more accurate risk assessments, personalized policies, and streamlined processes, AI can enhance the overall customer experience. Customers can receive more tailored offerings and quicker responses to inquiries.

Risk Mitigation

While many insurers are already revolutionizing their claims and underwriting processes with AI, the relatively untapped area for expansion is risk mitigation and AI's ability to guide businesses around or through potential threats.

The integration of connected devices further amplifies the capabilities of AI-driven risk management. For example, these devices can provide granular data on factors like heat indexes, pollen levels, and wildfire incidents. By fusing this data with location-specific information, AI can identify historical patterns and forecast potential risks.

Even more, AI can not only identify anomalies or spikes in environmental indices but also correlate these findings with historical claims data, enabling insurers to predict future risks and take preemptive measures to mitigate their impact.

This same intelligence could be applied to different industries, such as healthcare, and provide an insurer the ability to assess a population to anticipate underwriting needs and claims predictability.

AI INTEGRATION IN ACTION

Carriers, managing general agents (MGAs), and self-insured all can harness the power of AI to improve their decision-making processes. AI can help:

- √ **Rate** the severity of a claim, calling attention to claims that are more likely to be complex or costly
- √ **Extract** data and supply the information into a more readable format that pinpoints key data for adjusters
- √ **Map** client data based on information provided, giving a baseline assessment of clients
- √ **Rate** medical providers using data such as treatment date, each provider involved, and the diagnosis given
- √ **Help** assess data throughout the life of both auto and worker's compensation claims to rank risk, evaluate the potential of a lawsuit, and predict total incurred losses — just to name a few
- √ **Provide** auto underwriting support through risk ranking and loss projection
- √ **Provide** worker's compensation underwriting support using payroll codes, loss projection, and risk ranking data
- √ **Rate** legal counsel — both on the defense and plaintiff side — based on how they've performed using input from both the clients and internal data
- √ **Evaluate** data when underwriting workers compensation using risk ranking, payroll information, and loss projection data
- √ **Meet** regulatory guidelines by scanning medical records and automatically extract applicable data, culling the information into reports

IT TAKES A TEAM TO MAINTAIN THE HOUSE

Internal and external resources and partners with knowledge of an insurer's systems and data are critical to AI implementation, especially in these early stages. Partnering with different AI providers can help bridge the gap between what's possible today and what's going to be necessary to move the envelope tomorrow.

To learn more about data management best practices, or AI integration capabilities with Software as a Service core systems, contact us at info@origamirisk.com.

References

[1] CELENT "IT Spending in Insurance: Tortuous Road Ahead," November 16, 2022.

[2] Gartner "Gartner Survey Finds Insurers' Focus Will Shift from Growing Revenue to Improving Customer Experience & Operational Efficiency in 2023," January 9, 2023.

[3] MarketWatch "AI in Insurance Market Research 2023-2030," June 6, 2023.

[4] Forrester "The State Of AI In Insurance," February 7, 2023.

[5] Fortune "Want your company's A.I. project to succeed? Don't hand it to the data scientists, says this CEO," July 26, 2022.

[6] ValuePenguin "Two-Thirds of Closed Consumer Insurance Complaints Since 2021 Have Resulted in Settlements or the Insurer being Overturned — Here Are the Breakdowns," August 7, 2023.

[7] EY "Claims in a digital era: Data, analytics and AI transform the customer experience," 2017.

[8] Forbes "Harnessing The Power Of AI In The Insurance Sector," April 17, 2023.

ORIGAMI RISK

ABOUT ORIGAMI RISK

Origami Risk is a modern cloud platform for insurers, MGAs, Pools, and TPAs looking for speed-to-value advantage in modernizing legacy core systems and launching new products. Origami's multi-tenant SaaS architecture offers a lower cost of ownership that alleviates painful upgrades or expensive IT resourcing while continuously delivering new innovative development. The Origami core platform for policy, billing, claims, risk management, and loss control is built for scalability allowing customers to extend business footprints, easily integrate with the insurance ecosystem, and un-silo data to yield powerful business insights.

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