# AI for underwriting agencies

AI's transformative potential in underwriting hinges on robust data infrastructure – but without clean, integrated and accessible data systems, even sophisticated algorithms fail to deliver accurate risk assessment and competitive advantage

**ARTIFICIAL INTELLIGENCE** in underwriting sounds like a straightforward upgrade. Feed your data into sophisticated algorithms, watch as pricing becomes sharper and risk selection smarter, then count the competitive advantages. But Sanan Thamo has seen this optimistic scenario fail to materialise repeatedly.

The problem isn't the technology itself. AI's capabilities are real and powerful. The breakdown happens earlier, in the unglamorous work of data management that most agencies have deferred for years. What Thamo sees across the sector are organisations rushing towards AI adoption while their data infrastructure remains riddled with errors, scattered across incompatible systems and shaped by historical decisions that made sense at the time but now create serious obstacles.



> "Digitisation, data and AI are all going to collide, and they are going to become inseparable. In that world, underwriters will become exception handlers and relationship managers"
>
> Sanan Thamo, Ingrity

"We've worked with multiple agencies that have had big plans to leverage AI, but typically there are significant problems to solve first," says Thamo, founder and chief executive of data and analytics company Ingrity. "The biggest risk all these agencies face is that when this wonderful technology is available to all of us, your data is not ready."

## The changing role of underwriters

Before diving into what needs fixing, it helps to understand where this is all heading. The underwriting profession will look different once agencies get their data sorted and AI becomes embedded in daily operations.

"Digitisation, data and AI are all going to collide, and they are going to become inseparable," Thamo says. "In that world, underwriters will become exception handlers and relationship managers, rather than focusing on tasks and activity. They will focus on dealing with the exceptions and relationships."

Today, underwriters spend equal time on standard risk and complex risk. But within a few years, AI will handle most standard risk underwriting, with humans setting policies and guidelines for the algorithms to follow and monitoring their performance. Complex risk will still require human judgement for final decisions, but even there AI will analyse data and make recommendations first.

This future creates real opportunity, but only for agencies that build the right foundation. Those foundations start with addressing some uncomfortable truths about current data practices.

## Building the basics

The agencies Thamo works with face a common set of problems. Many don't collect all the data they need in the first place. What they do capture often contains errors that make it unusable. Critical information sits scattered across multiple systems, making it difficult to locate when needed. There's little focus on data quality overall, with people relying on information without checking its accuracy. Historical data from legacy systems presents particular challenges because everyone knows it contains problems, yet nothing is done to address them.

From a reporting perspective, many agencies lack proper dashboards and performance monitoring tools, creating significant gaps in their ability to track business performance.

What makes these issues urgent is how AI responds to bad data, compared to human underwriters. Traditional underwriting relies on human judgement to spot and correct problems. An underwriter sees questionable information, calls a broker, cross-checks other sources, or uses experience to fill gaps. AI operates differently.

"AI underwriting in the future, the model doesn't know the data is bad, and it learns

patterns from whatever you feed it," Thamo says. "Bad data becomes bad pricing, bad risk selection, bad business outcomes at scale and at a machine speed."

Research shows that most organisations underestimate both the time and resources needed for data quality work by about three to five times. They want to jump into AI applications but remain reluctant to invest in data cleanup. Where Thamo sees underwriting agencies making progress with AI, they have typically paid attention to data quality from the start rather than treating it as an afterthought.

Many agencies are spending significant money migrating from legacy policy and claims systems to modern platforms. Some have completed this journey, others are in process, and many are planning it. Yet most make a critical mistake by leaving the IT team to migrate old data into new systems without fixing the old data.

### Four steps to a unified approach

Thamo identifies four essential steps for agencies modernising their systems. First, conduct proper data due diligence on any system being purchased, including contractual arrangements and data models. Too often, agencies buy systems with no data documentation and limited access to their own data.

Second, understand data integration options and costs. New cloud-based systems will return data to agencies, but through specific mechanisms that may not meet their needs or may prove prohibitively expensive.

Third, cleanse and convert legacy data before migration. Many agencies extract data from old systems and ingest it directly into new ones, perpetuating all the historical problems. Thamo explains that it's important to extract data from the old system, cleanse it first and fix it, and then create a conversion file for the new system.

The fourth step proves the most difficult and least considered. When agencies switch from one system to another, the data format changes, which breaks all existing reports. Rather than rebuild reporting around the new data model, many agencies model their new data to mirror the old format.

"That means you go backwards," Thamo explains. "Even though you're digitising to go forward, you actually take this shortcut to go backwards."



### Towards a data-driven paradigm

The better approach is to create an independent data model for the company that remains constant regardless of which systems come and go. This protects reporting and maintains control over data. The agencies Thamo has seen making real progress with digital transformation have invested early in creating their own data models rather than remaining dependent on vendor formats.

Moving from fragmented manual processes to a unified, data-driven workflow requires focused investment in five areas. Agencies must invest in data technology such as Microsoft Azure for storage and processing, and dashboarding tools like Power BI. They need to uplift data engineering and analytical skills within the organisation, borrowing or augmenting resources from vendors when necessary.

Building an integrated data platform that receives information from all source systems at least once daily provides the foundation for daily, weekly and monthly business views. Developing a unified data model with key attributes ensures consistency in how data looks and feels regardless of who uses it.

Finally, agencies should develop Power BI dashboards at three levels: for executives, middle managers and team members. Each level needs aligned metrics, with middle managers seeing metrics that support executive priorities, and team members seeing how their work drives those metrics.

### What separates winners from laggards

The insurance industry will look drastically different by 2030. Those who view disruptive technologies as opportunities rather than threats will gain the most. Thamo identifies several factors that will separate winners from laggards over the next five years.

Speed to decision will matter most. If an insurance application arrives, agencies should make decisions in minutes, not days. Achieving this requires the right

digital infrastructure, data readiness and AI tools implemented.

Human-AI collaboration will take forms never before imagined, with augmentation complementing automation. Data will become a strategic asset, growing in significance and criticality beyond its traditional reporting role.

Continuous innovation will shift agencies from product-led to platform-led approaches. Agencies will bring new offerings to market more frequently due to AI and data capabilities, moving at machine speed rather than human speed.

Thamo's message is straightforward: AI has enormous potential, but it cannot fix broken data on its own. Agencies that want to be AI-ready must first become data-ready.

> "The [AI] model doesn't know the data is bad, and it learns patterns from whatever you feed it. Bad data becomes bad pricing, bad risk selection, bad business"
>
> Sanan Thamo, Ingrity

There is no shortcut around this work, and those who try to skip ahead will find their expensive AI investments delivering amplified versions of their existing problems rather than competitive advantages.

The Underwriting Agency Data Analytics Model below can be used to evaluate data and analytics maturity and define the next steps for improvement.

"Once in a great while, a technology innovation comes along that changes the world, and the businesses have to adjust or potentially decline into irrelevance," Thamo says. "Right now, it's AI's turn." ●

**UNDERWRITING AGENCY DATA ANALYTICS MATURITY MODEL**

| Area | Level 1: Basic | Level 2: Intermediate | Level 3: Advanced |
|---|---|---|---|
| **1. Data capture** | Not all required data is captured digitally | Most data captured automatically | All touchpoints feed data automatically into integrated systems |
| **2. Data management** | Files scattered across desktops, drives and emails | Centralised database for most information | All information instantly accessible and synchronised |
| **3. Data curation** | Datasets created manually to meet specific needs | Some curated common datasets automatically produced daily | Standard curated functional datasets available intra day |
| **4. Reporting** | Manual reports created when needed. Takes days or weeks | Scheduled automated reports. Standard dashboards available. Manual work for new requests | Near-real-time dashboards. Anyone can create instant reports with self-service tools |
| **5. Ad hoc analysis** | Answering questions requires manual digging | Database queries answer most questions in hours | Anyone gets immediate answers through intuitive tools |
| **6. Analytics** | Basic summaries of past performance | Identifies patterns and trends. Understands what performed better and why | Predicts future outcomes. Identifies opportunities and risks early. Recommends actions |
| **7. Gen AI** | No use of AI | Experimenting with AI for specific tasks like drafting emails. Limited, inconsistent use | AI integrated into daily operations |
| **8. Technology** | Heavy reliance on Excel for data storage, reporting and analysis | Some data and reporting hosted on Cloud platforms and visualisation tools | Fully integrated and automated cloud-based ecosystem. Tools communicate seamlessly |
| **9. Skills** | Data analyst with no data engineering or data modelling experience | Some data engineering, visualisation, AI skills | Sufficient internal technical skills. Data analytics partner to augment and scale |
| **10. Data governance** | No formal policies. Everyone manages information their own way. Reactive security | Critical data elements identified and tracked. Written policies for security, privacy, access | Comprehensive framework with automated controls. Regular audits. Privacy built into processes |

Source: Ingrity



**Transform Your Underwriting Agency.**

Make faster, smarter underwriting decisions

Improve loss ratios with predictive insights

Streamline bordereaux, compliance and reporting processes

Reduce operational inefficiencies and manual processes

Build trusted, future ready data foundations

INGRITY

# Empowering Underwriting Agencies to Become Data & AI Smart

Unlock the full potential of your underwriting operations with INGRITY - Australia's trusted Data & AI partner, for forward thinking underwriting agencies.

**Let's Build the Future of Underwriting Together.**

Scan the QR code to find out more.

02 8732 2600 | Level 3, 478 George Street, Sydney | info@ingrity.com | www.ingrity.com