

MERLYNN

**Digital transformation** across  
the insurance spectrum

TOM Digitized Human Expertise –  
evolved Artificial Intelligence - for lower frequency /  
higher severity risk.

# Quarterly Bulletin

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# Insurance - When it comes to AI one size does not fit all...

Data rich environments, such as personal lines and micro-commercial segments, have enjoyed the benefits of AI and automation technologies for some time.

Now carriers are seeking solutions for lower frequency, higher severity segments which currently remain reliant on human intervention to manage risk.

**The challenge** in these segments is a fundamental misalignment between the environment and existing AI technology requirements.

## The Data Challenge

Traditional AI technologies have a high reliance on data - availability and quality - to function correctly and to provide reliable predictions.

Lower frequency / higher risk segments, (large commercial /

corporate and specialty), are characterized by lower incident volumes, greater uncertainty, greater decision complexity and higher individual risk severity. With lower frequency there is a reduction in prediction technology performance due to data scarcity.

Therefore in segments where there is low frequency accompanied by high severity impact there remains a dependence on human expertise to navigate the uncertainty and risk.



## Uncertainty within insurance

Uncertainty, is a fundamental legal principal in insurance (technically fortuity). Uncertainty must exist for a contract of insurance to exist.

Uncertainty comprises the following aspect:

**WHAT** the unknown or risk of what might transpire

**WHEN** uncertainty about the frequency of events

**HOW MUCH** uncertainty around the financial impact of the event

**Uncertainty is directly linked to predictability, The more predictable these aspects become, the less risk or uncertainty there is.**

## Data driven AI technologies reduce uncertainty in high frequency segments

In data rich environments, like personal lines and SME segments, analytics and data driven artificial intelligence (AI) technologies have reduced much of the uncertainty, or risk, that the insurer is accepting.

IOT and monitoring technologies collect vast volumes of data, artificial intelligence enables insurers to micro-analyze this data, profile risk and predict - with great confidence - the answers to **“What”, “When” and “How Much”**. Highly accurate predictions provide insights into risk and enable insurers to automate decisions and actions to aligned to their risk appetite and overall strategy.

## Reduced Frequency / Reduced Prediction Accuracy / Increased reliance on human intervention

Within commercial, corporate and specialty lines data availability begins to decline, prediction accuracy and confidence also declines, to the point where AI technologies are unable to generate predictions at all.

Uncertainty increases (i.e. the disparity between what the data is able to reveal about the risk and the potential for risk broadens)

As risk increases insurers rely on human experts to interpret information, understand risk and make decisions that mitigate risk.

**In these areas human experts rely on their intuition and judgement – expertise developed over years to discern risk. Until now technology has not been able to cater for human judgement.**

**A new generation of AI technology is available that is able to model human expertise, intuition and judgement - in the absence of large volumes of data.**



**TOM™**

**Next Generation AI**

**TOM, Merlynn’s Tacit Object Modeler enables organizations to replicate human expertise to enhances efficiencies without compromising risk.**

Digitized expertise provides insurers with an innovative approach to manage risk – real-time access to expertise enables risk to be reviewed by a panel of

Virtual Experts who are able to comment with authority on various aspects of risk.

The technology is currently deployed in underwriting, claims, IT and compliance environments digitally replicating the decisions of experienced human experts making highly consequential decisions.



## Digitized Expertise in high frequency segments

**Uncertainty in high frequency segments – Black Swans & Systemic Events**

Black swan events such as Covid, and systemic events such as major economic or natural disasters, materially impact the availability and relevance of historical data.

These events cause insurers, regulators and society to examine and question past decisions and cast doubt on the reliance which can be placed on predictions stemming from historical data to accurately forecast future events or behavior. Uncertainty again means organizations defer to the better judgement of subject matter and industry experts for advice on how to proceed and mitigate risk.

TOM™ is agile, the technology learns within hours directly from the human, enabling organizations to rapidly adjust thinking and shift direction where necessary to responsibly navigate headwinds and unexpected challenges.

**For more information visit**  
[www.merlynn-ai.com](http://www.merlynn-ai.com)