Harnessing Geo-Based Data for New Insights on Property Risks

With the growing complexity of risks and the explosion of external data, technology today can do much more than just delivering information ... it can deliver actionable insights

Data has always been at the heart of insurance and underwriters typically evaluate risks based on statistics and probability. Today, the insurance industry is facing a fast-changing risk landscape in a dynamic world. Emerging risks are on the rise driven by political violence, climate change, technology, and – more recently – pandemics. Climate change is causing extreme weather volatility, and the insurance market has experienced a surge in catastrophic losses due to flooding, hurricanes, wildfires, and droughts, with insurers struggling to achieve property underwriting profits.

Underwriters must gain a deeper understanding of property risks. Historical data can only give an incomplete vision of risks as risk patterns change over time, and real-time data is critical to better comprehend emerging risks.

The good news is that more data is becoming available; there is an explosion of specialized geographic data providers using drones, satellites, IoT, sensors, and connected devices to develop a broad variety of external datasets. Some exciting datasets are being developed to enrich internal data and improve the accuracy of existing data. For instance, satellite images can help determine roofing materials or provide accurate geocoding for a building, other datasets provide geo-based data for a variety of natural perils and we now have access to real-time data on severe weather events, political violence, or pandemics.

Merging and comparing multiple datasets will provide better overall currency and accuracy of information, which has always been a challenge for underwriters. Because they rely for the most part on legacy systems, insurers cannot integrate external data efficiently in their pricing, underwriting, reserving and reinsurance strategy.

Modern technology is the quickest and only way to capture, combine, visualize, and analyze massive datasets. Big data can deal with large volumes of data from various sources, and in multiple formats, with high performance. Artificial intelligence (AI) transforms unstructured data into usable information. Predictive analytics uses many techniques from data mining, statistics, modeling, machine learning, and AI to analyze current data and make predictions about the future.

To stay relevant and profitable, the insurance industry must strive to adapt. New technologies provide specialized and evolutive platforms that can integrate into insurers' ecosystems to complement legacy software. Because they are user-friendly, next-generation tech tools make the data accessible directly to insurance professionals and therefore are not limited solely to actuaries and data scientists. However, insurance will always be a "people business" and technology will never replace insurance professionals' expertise. We are not heading toward automated underwriting, but rather assisting underwriters to make better informed decisions.

Jacqueline Legrand
Founder and CEO
Maptycs Inc.

About Maptycs

Maptycs is an Insurtech company based in New York, that uses geospatial visualization and advanced analytics technology to help insurance professionals better assess property risk exposure, map assets against natural perils, and monitor severe weather events.

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