



WEDNESDAY 16 DECEMBER 2020

Technology can help to insure the uninsurable

Technology is increasingly being leveraged as a highly effective tool for risk control, reduction and prevention



Michael Parcelli
Xceedance

Traditionally, insurance risk assessment deals with visible, static exposures. Tangible assets, such as vehicles, real estate and even workers, can be visually evaluated for both exposures and controls, but with limitations. Those “assets” can be monitored and specific hazards understood for both potential frequency and severity. However, some exposures – for example, cyber attacks or viral diseases, including the current Covid-19 pandemic – are often impossible to predict and, therefore, extremely difficult to underwrite.

Because of the significant number of variables and rapidly changing circumstances, some in the industry would also argue risks such as pandemic and cyber are simply too complex to insure. However, insurance is an extraordinarily innovative and creative industry born out of the need to mitigate against evolving uncertainty and danger. Armed with the latest technology toolkit, the industry is capable of insuring unpredictable perils.

In the Covid-19 pandemic, people are both the cause and the control of the infection, meaning the population has become a moving hazard, creating po-

tentially new and derivative exposures. Consequently, the challenges for risk managers are to measure the total exposed value, as well as the current management of mitigation controls. The significant contamination and loss of life are not localised and can grow exponentially, meaning traditional models of underwriting risk assessment can quickly become obsolete.

Cyber underwriters, on the other hand, have two critical considerations. One is the types of malware and ransomware, the other is looking at how the data at risk of a cyber attack is collected, stored and secured by the policyholder. Both are difficult to quantify and monitor in real time and can lead to rising loss ratios for cyber insurers.

Intangible exposures

In both cyber and pandemic perils, there is a clear need for insurers to deepen their understanding of intangible exposures and reassess them in insurance contracts. Since new exposures are uncovered every day, understanding and limiting them seems all but impossible.

Risk prevention and risk reduction are the two most significant objectives of risk management. In the case of cyber risks, preventive measures such as running anti-malware applications and using firewalls potentially limit the degree of damage, but those are not a complete safeguard when it comes to the extent of the intrusion. The latest advances in early detection technology make the process of reducing and, most importantly, preventing an event easier to address.

The use of machine learning to anticipate and detect malicious activities and trigger counteraction in real time can act as more of a watertight control to prevent sophisticated cyber attacks, such as obfuscation and



Digital technologies can have a critical role to play in establishing proven controls for the Covid-19 new normal
Scharfsinn/Shutterstock.com

New technologies can be integrated into legacy workflows, helping to improve the ability to manage changing variables within risk assessment

polymorphism. Furthermore, powerful machine learning algorithms and deep learning networks, which can get smarter and more effective over time can bolster cyber security through faster, round-the-clock threat detection and in-depth, actionable insights into cyber security gaps across the IT landscape.

But how can underwriters understand the level of exposure and determine the degree of risk more precisely when the exposure is tied closely with human behaviour? One answer is the greater adoption of wearable technology.

An excellent example is SmartCap, a headband inside a trucker's cap or other headwear. It measures electric brainwaves and translates them to measure levels of alertness or fatigue. If the employee appears drowsy, notifications can be sent in real time to the driver, as well as to the central monitoring system, allowing decision-makers to take quick preventive or corrective action. Smart technologies, like SmartCap, enable early notification and tracking. In this case, the workforce stays healthy, property damages to company vehicles

can be prevented and accident liability is reduced significantly. As a result, underwriting risk assessments are improved for such dynamic exposures.

Another interesting example is using mobility sensors designed for vehicles, including boats, aircraft and bicycles. Sensor technology can be leveraged to recognise first notice of loss in the case of an accident and to deploy assistance to reduce losses. Sensors affecting vehicle braking systems can also activate controls to prevent the accident from occurring.

Critical role

Digital technologies can have a critical role to play in establishing proven controls for the Covid-19 new normal. Leading technology companies are taking to market revolutionary digital tools with artificial intelligence-powered image analysis on closed-circuit TV footage to detect personal protective equipment non-compliance. In office environments, they allow employers to take immediate corrective action to limit employees' exposure to the virus. Similarly, sensor technology, along with mobile apps, can be used to manage em-

ployee movement in the office as well as occupancy and density in the workspace, helping to enforce social distancing.

In today's age of hyper-connectivity and data explosion, insurers cannot simply rely on legacy and static methods to capture insights. Advances in sensor technology and the proliferation of the internet of things are making real-time data readily available to bolster risk assessment. Underwriters can leverage diverse data for accumulating exposure reports during risk assessment, and they can consider historical behaviours to assess whether the risk is evaluated at higher-than-expected hazardous exposures.

Insurers can rely on digital service providers to compile data from multiple information sources in real-time and rapidly develop decision support mechanisms. Additionally, new technologies can be integrated into legacy workflows, helping to improve the ability to manage changing variables within risk assessment.

Covid-19 has taught us that in a disruption-prone world, it is impossible to completely sidestep large-scale, unprecedented events and the ensuing exposures. However, by using smart technology, underwriters and risk managers can quickly adapt and better manage such dynamic threats. ■

Michael Parcelli is senior vice-president, solutioning and process consulting at Xceedance