Viewpoint: Rising to the challenge of the insurance industry's new frontier

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Technology is creating a challenging new risk landscape for insurers to navigate.

Data is the lifeblood of the insurance industry, and by 2020, more than 200 billion data-producing devices will be connected to the internet.

That data will pour in from sensors on equipment, buildings, clothing, vehicles, furniture and appliances. It will monitor the changing physics and chemistry of rivers and oceans, volcanoes and hurricanes, vital organs and bloodstreams. It will track activity, inventory, quality and probably even appetite. Like a newly discovered dimension, data will become universally quantifiable and therefore integral to the management of our lives.

With the arrival of augmented reality – the last link in the internet of things – we should be able to crunch and deploy an estimated 44 trillion gigabytes of data every year. The value of that data, of course, will depend
entirely on how we use it. Well applied, this new universe of metrics could reshape every corner of the insurance industry. Data will help mitigate risk in transformative ways.

For policyholders, it could radically improve safety standards, quality of training and accuracy of workplace activity monitoring. For the insurer, data could take risk assessment and selection to new levels of granularity, while quantifying countless and, previously unmeasurable, risks for much-needed coverage. In an industry that can underwrite anything it can measure, the ability to measure anything on Earth will remove most of the barriers to growth.

Workers have been immersed in the data served up by their computers for decades. The swift rise of augmented reality and artificial intelligence means these workers will soon be subordinate to their technologies in new ways. The self-driving car is the obvious example, in which almost unimaginable benefits of efficiency, economy, convenience and safety will be realised only when humans grant ultimate decision-making authority to their machines.

Less obvious (yet just as telling) examples are the valve in a boiler that could direct an engineer on duty to “close me immediately” and the intravenous monitoring unit in an emergency room that could order up “more anesthetic”. In each of these cases, the interface between data and worker will increasingly be a protocol to follow rather than a set of information on which to base a decision.

**Future liability**

Who, then, is really calling the shots? When something goes wrong, who is liable? In the future, the accidents that occur will often be due to some sort of software defect (bad design), organisational choice (bad management) or mechanical defect (bad manufacturing). We are now entering a multi-decade period where the computer, the organisation and the worker might all be declaring: “It’s not my fault.” In these situations, insurance could be an ideal mitigating solution, but only if underwriters deeply understand the complex and subtle risks inherent in software algorithms and protocols.

Crime is taking a whole new turn. In our massively connected world, new threats to property (personal and intellectual), security, privacy and reputation are arising daily. From ransomware to data theft, an explosion in cyber crime is forecast to cost the global economy $2trn by the end of the decade.

As cyber threats evolve, policies must evolve. Cyber coverage is already extending from data loss and business interruption to property damage and bodily injury. Imagine the attacker who hacks into a medical network and is able to change the coding on a life-support machine. We could potentially have a bodily injury property damage event as a result of a cyber attack.

With these kinds of risk vectors, we must be acutely conscious of – and keep up to date with – the growing threat environments. While many businesses say they are aware of the risk, only some protect themselves from it. In Argo’s survey, 84% of small and medium-sized enterprises saw threats and attacks as a priority during the next 12 months, while only 40% had purchased any kind of cyber coverage.

As society learns the bad guys are now coming through the wires, our industry can, and must, be poised to offer sensible, affordable, effective coverage that keeps businesses in business when something bad happens.

**The new frontier**
In the past decade, the insurance industry has declined some 10% as a contributor to the GDP in the UK, even though the domestic economy has grown. There is a reason: the parts of the economy that are growing are either underinsured or uninsured. One obvious example is the digital or gig economy. Anyone with a computer and an internet connection can start a business these days and the trend to launch start-ups on shoestrings continues.

There are many more freelance workers today than ever before, so the work function in society is swinging slightly away from facilities-based corporations to home-based enterprises. Almost all of these are uninsured. The reason has less to do with cost avoidance than with small-scale entrepreneurs’ ignorance of risks inherent in their balance sheets.

This newly structured economy offers rich opportunity to the members of our industry, especially as digital businesses are more easily monitored and measured than traditional businesses. Purpose-built insurance and risk-management solutions could serve the digital economy well, but only through the marriage of savvy underwriting, brilliant technology and true customer understanding can we reveal the value we can bring to the individual or start-up. If we fail, we will have missed one the greatest opportunities we have ever identified.

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