

INTELLIGENT TECHNOLOGY AND DATA STRATEGY: A PARADIGM SHIFT FOR INSURERS

All re/insurers and brokers are grappling with the implications of an unprecedented wave of new technologies labelled ‘insurtech’ which are capable of transforming their businesses. In a webinar sponsored by Xceedance, four senior executives debated how insurers, reinsurers and brokers should respond to this barrage of change and innovation.

The rapid advancement of intelligent technology is already transforming the modern insurer’s relationship with data and producing actionable analytics. Intelligent technology, including artificial intelligence (AI), robotic process automation (RPA), machine learning, augmented reality, and blockchain, is converging with data sciences, analytic assets, and the Internet of Things (IoT) to create a new landscape of opportunity for insurance organisations.

As we enter a highly transformative phase for the industry, traditional insurance roles will evolve considerably, with the work shifting from labour-intensive activity to decision-making prowess.

The data and intelligent technology paradigm shift requires the emergence of a completely new kind of insurance company or a significant transformation in the working practices of traditional insurance organisations.

In a roundtable format sponsored by Xceedance, expert participants discussed the best practices for the application of AI platforms, self-learning algorithms, data sciences, and smart data-sourcing which can make underwriting, operations and related business process management much more efficient and cost-effective.

What is your perspective on the insurtech revolution so far?

Arun Balakrishnan: In the next 10 years, insurance organisations will likely look and operate very differently than they do today. New, technology-driven insurance companies will enter the market, and existing companies will evolve to be highly data-driven. There will be a transition to a more pronounced digital service model and a much stronger reliance on prescriptive analytics and data sciences.

As a partner in the insurance ecosystem, Xceedance strives to help companies establish their realistic vision of the model insurer of the future. The biggest problem insurance organisations encounter is one of timing. Every day I am asked whether now is the right time to act.

It is also worth noting that many of the industry’s efforts to embrace insurtech are, by and large, lacking direction in the near term. When considering insurtech options, there is the need to follow a path with well-defined parameters for success. With sharp definitions of intended outcomes, investments are more likely to produce a beneficial transformation of legacy business models. My experience is that for many insurtech investments there is not a clear strategy or a sense of priorities. In that regard, insurtech is a mixed bag for the time being.

John Connors: Gen Re is a global reinsurance company writing on a direct basis so my perspective is somewhat different. As a reinsurer, we are very interested in the changing insurance industry but the challenges for insurers in navigating that landscape are very different from ours.

This is a very exciting time for the industry with a lot of potential for disruption. Technology is becoming central to the industry and that has many implications.

Any initiative that seeks to drive expense out of the insurance value chain is welcome. We are all suffering from 10 years of zero interest rates and the surplus of capital, so anything reducing costs is a positive.

But there is a broader picture. The banking industry and fintech are a little ahead of the insurance industry, and larger incumbent players like us can take heart from what has happened there. We have seen firms adapt and no large bank has disappeared because of what has disrupted that sector.



JOHN CONNORS

CHIEF INFORMATION AND OPERATIONS OFFICER, GEN RE

John Connors has worked in the re/insurance industry for more than 25 years. He joined the Gen Re group in 2002 as head of operations for Faraday Underwriting, Gen Re's London Market subsidiary. He relocated to Stamford

CT headquarters in 2010 to lead the SAP-based transformation as programme director, and also took responsibility for IT as Global CIO in 2013. He is currently responsible for Gen Re's IT strategy and delivery, as well as a number of technical support functions.



ARUN BALAKRISHNAN

CHIEF EXECUTIVE OFFICER, XCEEDANCE

Arun Balakrishnan has more than 10 years of experience launching startups in the industry. Before founding Xceedance, he served as the chief executive officer for Berkshire Hathaway Insurance in India. Prior to this, Balakrishnan

founded and functioned as chief executive officer for an insurance aggregation portal company which secured venture capital funding from one of the top internet companies in India. He started his career in the Merchant Marine as a deck officer on cargo ships and oil tankers.



JULIE SERAKOS

EXECUTIVE VICE PRESIDENT, CATASTROPHE ANALYTICS, BMS RE US

Julie Serakos has served on the US executive committee and is part of the solutions team devising strategies to clients' risk management challenges. She has nearly 30 years of industry experience, most recently

working at Willis Re where she built and managed the catastrophe management services division and also led the property resource division. Prior to Willis Re Serakos worked at E.W. Blanch developing and managing its catastrophe modelling team and at The St. Paul Companies overseeing the catastrophe risk analytics team.



PAOLO CUOMO

PRINCIPAL, BOSTON CONSULTING GROUP

Paolo Cuomo previously worked in the London insurance market at Beazley and as chief operating office at Charles Taylor Managing Agency. He is a vocal promoter of the smart use of technology-driven innovation and is co-founder of InsTech

London, Europe's largest insurtech association. Cuomo was formerly a McKinsey consultant and is a regular presence in the top 10 of the Power 100 List of InsurTech Influencers.

With insurtech there are also echoes of the dotcom era and there is a fear of missing out, which is overriding a clear view of return. That is a challenge but we are excited. Adaptations in the business model are clearly needed but we should also avoid following the herd into areas that never come to fruition.

Julie Serakos: For BMS, as a risk and capital advisor and a broker, insurtech is having an impact on our business through disintermediation but it is also affecting our clients—the primary companies and the reinsurers we deal with, through product changes and automation.

My view is that the IoT has the ability to develop opportunities for personalised insurance. That will be a positive for people in a lower risk class than others and should also inspire less risky behaviour. The unintended consequence of this is the potential for the demutualisation of risk which is a fundamental principle of insurance.

We are already seeing this play out in health and life insurance where testing and health histories are leading to lower coverage or denial of coverage. So there needs to be a balance between personalisation and the mutualisation principle of insurance.

I also see a lot of creativity in terms of the data that is captured. This raises questions of privacy and permissions. Perhaps there need to be new regulations to address this. Maybe this is generational; young people are more comfortable sharing information and the issue of privacy and permissions is different for them and dependent on how the data will be used. I expect more debate to be had around the privacy of information.

Paolo Cuomo: In terms of the commercial side, the insurtech revolution is not a revolution just yet—it is still in a very early phase. Despite all

the talk, nothing fundamental has changed yet but the momentum and direction mean that in 10 years we will see insurance in a different light.

On that basis it is right we get excited about the potential of technology. Insurance is ultimately the flow of data and money and the ability to process this faster will drive change. Perhaps the principles of shared risk will disappear but concern over what that means is not a reason to slow down advancement.

The point on lowering expenses is correct but that is not enough to drive a revolution. Fundamental changes in the way we look at risk are coming. In 2016 people were talking about insurtech, in 2017 they are dabbling. I think the rubber will hit the road in 2018.

I also agree that everyone seems to be heading in different directions but that is a vital part of this phase. The theory of some of the ideas might be good but often the momentum is not there. From 1,000 seeds only a few flowers will bloom but that is a necessary part of where we are—it is a case of incumbent players spotting those with something to offer or something unique. Long live the revolution and the creative chaos.

Which areas of insurtech have been of greatest interest to you?

Cuomo: Clients are steering away from new technologies as an input and focusing more on what can change as an output. They are interested in the digital proposition, data-driven decision-making and smart operations which remove friction from the process.

Inevitably, any true transformation towards being a 21st century insurance company takes time and money; as opposed to tinkering around the edges to merely become a marginally more efficient 20th century insurer.



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In terms of the different aspects of insurtech, the use of data-driven decision-making is important and that can come from anywhere. AI is a nice idea and may be a tool to support underwriters or actuaries. Blockchain got a lot of noise last year but it will not change anything immediately.

RPA is one of those technologies that divides people. Some believe they should embrace it now while working out what to do next and others say wait to see how it evolves before moving in a more fundamental way.

Serakos: I agree about the industry being directionless. As a broker sitting in a pivotal position we are following all areas of insurtech to see what is happening and how investments in different areas are playing out.

As a broker we believe blockchain holds great promise in terms of streamlining the contract process and ensuring everything is very well defined through the whole value chain. This is particularly important for a collection of contracts where the insuring relationships can get complicated. Blockchain would streamline and create certainty in the process.

Additionally, we welcome a better understanding and pricing of risk and we see several initiatives as promising in the industry. AI and robotics have the potential to streamline costs. We all know the industry is overburdened by manual processes so reducing expense ratios would be welcome.

Furthermore, new technology and data will help to create more efficiency in product development. BMS has focused on business intelligence technology and big data to help our clients understand the risk better.

Connors: Analytics is the main priority for us. We are doing things in other areas but our overwhelming focus is on analytics to better understand risk and how we price it.

Some of the new technologies coming into play such as cognitive computing are exciting but there are also more traditional approaches to using data internally to gain insights into risk. We have developed some sophisticated data analytics tools and we have also appointed a chief data officer to bring focus to our activities that span many units.

That is internal but we are trying to ensure we do the basics properly so we do not miss out on opportunities. We are a founding member of an insurlab in Germany tasked with accelerating the development of certain technologies.

The fact is that if 1,000 fires are lit only a few will take off. It will be interesting seeing who picks the winners. They cannot all win. There are around 100 startups covering Blockchain alone.

We have also done a robotics process automation pilot with mixed

results. The overwhelming emphasis for us is on analytics and what we can do to be leader and understand what the data is telling us in terms of insights into pricing risk.

Cuomo: The opportunity to get more insight from the data we already have is huge. People can get excited about shiny startups and not realise the wealth of insight they have internally. There is ample opportunity for companies that cannot afford to start driving forward new initiatives simply to exploit what they already have better.

Balakrishnan: I agree. People and entities within many insurance companies are not typically extracting the greatest value from their own data. In part, it's because they are unwilling to share their data more openly—even internally.

Cuomo: Most insurers are aware of the potential value of data but they are not exploiting it well enough. They are definitely hesitant to share it as they worry others will gain more insight from it than they did. They hold it close to their chests but may look to partner with the right service providers and startups. However, especially in risks where volumes are low, we will start to see more data-sharing and that will benefit everyone.

Let's remember, to get value from data one needs access to that data and the right tools and mindset—data by itself is of no value.

Connors: That is a great point. There are opportunities for a reinsurer to be a data aggregator as we see a broader spectrum than any single insurer. We have undertaken a couple of data pooling initiatives and they have been well received. We want to use our position to have the scale to be able to bring experts and data scientists to gain better insights into risk behaviour for clients.

Serakos: We collect various levels of data for clients and the more data we have the better we can support their needs. There is a fear of sharing data but maybe the younger generation—with the emergence of the sharing economy as young people move into management and leadership positions—will change that viewpoint and drive the sharing philosophy in our industry.

How is the process of embracing change taking place in your business or those you work with?

Connors: No company can be an island in this. Given the breadth of changes and risk and opportunities out there with different technologies all generalised under the umbrella of insurtech, there are so many fronts to fight on.

We segregate it into buckets of what we can do internally around data



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and analytics, and what we cannot do internally around new offerings. We are humble enough to know if something is not our speciality we work with others without following the pack.

On the data side we are more self-sufficient as we see that as our core competency. But we also work with partners. We did a pilot with IBM Watson on accelerated underwriting which met its objectives but is not something we can scale up immediately.

The external market is difficult to navigate to ensure that you partner with the right companies but no-one would tackle this alone and we partner with major providers when we need to.

Serakos: Different technologies are affecting different areas of the business in different ways. It is a balance of finding the right in-house expertise versus partnering with the right external consultant.

From a broker perspective, we need to build capabilities for clients in an environment where margins are shrinking. That is transforming how brokers are positioning; from making heavy investments in all areas to finding the right firms to partner with in the right areas for our clients.

Yet, despite all the discussion around insurtech, the industry remains divided in terms of the level of investment and direction that insurers are choosing to go in. Some companies are actively investing and developing new products, others are taking a ‘wait and see’ approach, sitting on the sidelines ready to jump in, yet others deny the benefits of insurtech and are burying their heads in the sand. As with any change, there are different levels of adoption.

Cuomo: There are three camps: those companies being proactive who will drive the change, who for example have set up in-house venture capital firms or incubators.

Others accept change is happening but want to be a fast follower; if and when things change they adapt quickly.

There is also a small group who are still somewhat in denial. In 2016 perhaps that was allowable as there was still a lot of hype. But now it should be unnerving if you are in an organisation where management are saying ‘this technology-driven change is not a priority’.

The whole swathe of new technology will touch all aspects of the insurance value chain. This is more than a tech play, it is a strategic play now. The core of an insurer will still be holding the capital to pay claims but their ability to embrace technology needs to become pervasive.

Balakrishnan: At Xceedance, we see one segment of clients taking the COO’s approach to change-management, which is often driven by the

expectation of a very tangible output and outcomes strategy. Other clients we work with are more interested in a change management strategy that drives operational expenses down by automating processes and using technologies such as machine learning.

Overall, as companies restructure their value proposition around managing change, the industry on the whole will gain wisdom and experience on best practices for effective transformation.

Cuomo: It is also true that if you are a large broker or a big primary carrier then you can invest and test, but an awful lot of small companies’ investment is smaller. Yet better data analytics for example can be invaluable to these companies, and the ability of the CIO or COO to realise that partnering is important is vital.

Connors: The emphasis is on what you bring to the table within the value chain. We are all trying to get closer to customer and the IoT is going to change the industry in terms from risk management to prevention. That is happening already.

We do a very specific thing and that is carry risk. We do not see appetite from insurtechs to carry risk. Some 18 months ago there was huge concern when Google secured insurance licences in a number of US states but, if anything, they back-pedalled. They do not see themselves as a carrier of risk.

Could they be disruptive? Absolutely and they are part of the puzzle but the incumbent players will maintain a huge role.

What will the insurance company of the future look like?

Balakrishnan: First, we see a future where most risks could be priced individually, based on data standards and sources with a much higher level of precision and granularity than today. An increase in the quality and availability of risk assessment data will naturally increase the level of knowledge and focus of underwriters, helping them to price risk more accurately.

Second, we can expect a significant amount of back-end processing to become automated while the nature and role of work will transition to a more pronounced emphasis on proficiency and foresight in decision-making.

Rather than focusing on menial tasks which can be automated, professional insurance staff will increasingly find themselves in roles that require the deep, contextual knowledge necessary to analyse and solve complex problems, and to make smart and timely decisions.

The service industry will also need to adapt, by becoming more creative and agile in demonstrating value to clients. In essence, service providers such as Xceedance must evolve as well.



“From a broker perspective we need to build capabilities for clients in an environment where margins are shrinking.”

Cuomo: In the short term the overall shape of the value chain will not shift. However, over the medium term the source of risk at one end and capital at other will stay but everything in between will start to change. This will reduce friction and the amount of data will increase.

There will also be more focus on risk mitigation rather than paying out when things go wrong. More data means more insight—brokers and carriers will be seeking additional revenue streams from risk mitigation.

In the longer term, the value chain will significantly shrink. Currently, up to 40 percent of premium is swallowed up by costs, that will have to change and it will become shorter.

Serakos: I believe insurers’ business models will transform and be very different in the future. Traditional ‘brick and mortar’, full service insurers will no longer be the norm. The cornerstones of the insurance operation include the capital, the products, the distribution, underwriting and claims, all of which are experiencing a lot of change from insurtech and will be transformed.

Big data is changing the product and pricing. Automation is changing underwriting and claims handling. How risks are being matched to capital is being transformed through changing distribution and through the disintermediation that is happening in various degrees, depending on the product line.

Some risks will become fully commoditised and traded actively, allowing investors to define an optimum portfolio and match the ideal risk to the capital that sits behind it. The industry is experimenting with capital sources, third-party processing organisations and MGAs. It is, in effect, testing the system to find the most efficient structure. This will continue to evolve into the foreseeable future.

Connors: There are some things we can say with a degree of certainty—we cannot predict everything but I see an evolution to a more service orientation, which is already happening in personal lines.

There will also be more focus on avoiding the occurrence of a loss rather than just indemnifying against it—a lot of us have seen that happen in the aviation industry where technology has changed the underlying risk. This can lead to scenarios where we get premiums shrinkage. That is happening more now in life as an individual’s risk can be calculated more accurately.

We provide a cyber risk product and that is more about helping companies avoid losses as well as dealing with PR. It is more about being service-oriented.

I am an optimist—the main thing we see is the adaptation by incumbents whether they buy startups and take the best of what they offer or partner with new entrants from outside the industry. And while there may be

premium shrinkage in some specific lines, the pool of insurable risks is increasing thanks to microinsurance and greater penetration into markets as well as new risks such as cyber.

I foresee an evolution not a revolution—revolutions seem that way only when we look back; when in the middle of them the change is more incremental. But we will watch all developments on all fronts.

What reservations do you have in terms of embracing this technology? What could derail the momentum of insurtech?

Cuomo: The cyber threat is a risk at one level but that is a concern for every type of business. Cyber insurers aside, this is no bigger an issue for insurers/brokers as companies than any other organisation. I don’t want all the gloom and doom of ‘technology taking over the world’ to impact progress. There will be winners and losers—companies that do not embrace digital will be at a disadvantage and be worse off as a result—but on the whole I don’t think there will be large number of new entrants that crush all the incumbents.

Some premiums will disappear because data allows us to measure risk better—but opportunities will also emerge in new risks where premiums can grow.

Serakos: In the short term we will continue to evolve but several risks could slow that evolution—cyber risk is a real threat to the use of data and automated applications. Regulators also have to keep up with the pace of change. They already struggle with complex pricing models and complex risk transfer products, so they could slow the pace.

The older generation could also slow the rate of change. As the younger generation takes leadership positions in the industry we may see the emergence of a faster pace of change as they already have adopted and accepted technology and big data.

Connors: Governments and regulators can slow momentum and the direction of travel on data privacy is counter to globalisation, but while there will be headwinds it will not stop the change. Cyber risk will not stop the pace of change either—I think this is a new reality for us and many other industries.

Balakrishnan: As with any disruptive phase in a mature industry such as insurance, we sometimes tend to focus on technology itself, so much so that we can end up with solutions in search of problems. If we focus instead on the real pain points in the industry, many of the risks and roadblocks associated with embracing innovation and executing transformation can be navigated effectively. □