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2016 EDITION

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Interviews

From copper to gold: transforming telematics into predictive analytics

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INTERVIEW WITH

MIKE BROCKMAN

GROUP CEO

INSURETHEBOX

Dear Mike, could you please tell us about your new position and how it relates to analytics?

Since the acquisition by Aioi Nissay Dowa Insurance Europe (ANDIE), I am CEO of our Group company, Box Innovation Group Limited (BIGL). The BIGL Group includes both Insurethebox, a Managing General Agent (MGA), which means, in our case, a direct end-to-end insurance provider, and BIG Telematics, our in-house telematics service provider.

Analytics has two components for us. We are both a user of telematics data at Insurethebox and involved with analytics across the ANDIE group.

Thus we have teams of data scientists and actuaries both

within BIG Telematics and Insure thebox.

Within BIG Telematics we make partnerships with long term third party strategic partners such as Tesco Bank. We give them access to our own system and white label our proposition for them. So we do not wish to replicate the Octo model and choose to partner only with selected external entities.

How did you decide to create Insurethebox?

The embryonic idea came to me in 2008, during my consulting at EMB, which I had co-founded and co-ran for 16 years.

My background has been in motor insurance since 1980! I have been an actuary, a data analyst and a consultant for 20 years.

So I created Insurethebox on 8 November 2008.

Immediately everyone told me I was nuts! "No consumer would want a box in a car!" How to make money by paying for a box in a motor market that was already losing money overall?

We launched our first policy in June 2010 on MoneySupermarket.com. We were aided by the fact that British consumers are the biggest buyers of financial services online and credit card purchases have been

readily adopted. Today 65% of new motor policies are sold through Price Comparison Websites in the UK. This gives us access to millions of customers but makes the market driven to the lowest price denominator!

In fact, telematics proved 10 or 20 times more difficult than I thought it would be! This is also why it is also much more difficult for others and it represents a barrier to entry.

Being a first mover represents a big advantage for our brand but we are still learning today.

2.6 Billion
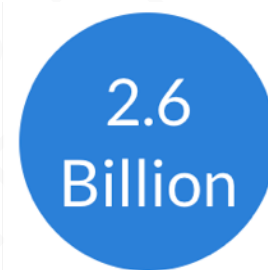
The number of miles since 2010

So what were your objectives when joining with Aioi Nissay Dowa Insurance Europe?

I had built Insurethebox from scratch with no extra funding. I persuaded Catlin, a Lloyds syndicate, to provide us underwriting capacity. Catlin and then Munich Re became then a "binding authority" for us.

Catlin eventually became a shareholder by providing loan capital. This helped us fund the investment required, i.e. both the cost of the technology and the in-house platform. This was a huge investment for us, which was much beyond my personal means. But it was required and similar to what insurtech startups are doing now.

Catlin and Munich Re backed us up with faith in our long-term model.

At the same time, I was feeling that automotive OEMs could become a threat to us in the long-term. Embedded technology could allow them to take pole position in the future and I thought alliances would make sense.

Simultaneously, Catlin chose to focus again on its insurance / re-insurance business and join with the XL Group.


171 million

The total number of Bonus Miles earned by customers

How has the acquisition changed your strategy?

We are technically part of Aioi Nissay Dowa Insurance Europe (ANDIE). Aioi is the captive insurer of the Toyota Group and provide to Toyota's insurance needs worldwide. Before the acquisition, ANDIE was relatively small because Toyota is smaller in Europe than in Japan and the US.

However, MS&AD Holdings, the parent company of ANDIE, is the 8th largest insurance company in the world.

So ANDIE is now our underwriter and provides corporate governance. This leaves **Insure thebox to focus on developing B2C relationships based on our telematics capabilities.** Insurethe box management still have a minority shareholding of the company.

54
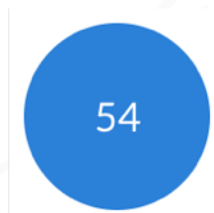
The average number of Bonus Miles earned in April 2016

The extreme B2C character of our activities is often misunderstood. **We are what I call "super-direct".** Thanks to telematics, we interact with our customers on a 24/7 basis. This completely changes the insurance business model, and OEMs have even less expertise in this than insurers.

Our business model has changed. Before the acquisition, I wanted to create one of the largest insurers in the UK. We still need a credible amount of customers but **now we are attempting to build a group-wide telematics operation,** and the UK based Insurethebox entity is more of a showcase for best practice. We have projects in the US, in Europe, in Japan and in the Far East.

The UK has been a disappointing market for UBI in the last 2 years, as it seems to plateau at around 4-500,000 policies.

How can analytics help insurers go to the mass market?

One could say this is due to the use of the black box technology but this is not the case. **We are still wedded to black box technology.**

I am not concerned about the cost of the device, which is not the main cost today. We have seen a **rapid fall in the price of black boxes**: from £140 in 2009 to £40 today. And new devices are much better than the older ones!

In any case, **I don't think smartphone apps will be the solution** because you cannot provide the breadth of services.

We will go gradually from young drivers towards customers with lower average premiums. However, one must be aware of the obstacles.

Firstly, there are wider discrepancies in the driving style of young drivers compared with more mature drivers, and thus telematics allows you benefit from the wider **self-selection** effect inherent in this demographic.

Similarly, the behavioural change is stronger: youngsters generally respond better to requests to change their driving style than older drivers.

Finally, given their high market premiums, young customers are highly sensitive to better prices and will work to reduce their risk

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to get the best price. Price dominates for young drivers while more mature drivers buy on both the price and the proposition.

Insurethebox have learned a lot about telematics business over the last six years, for example in claims management. We have learned how to fully leverage the benefits of telematics for claims management and this takes several years to do.

I would say: **watch this space! We are in our 7th year of operation. We know a lot more now and are looking at other propositions.**

How predictive your driving scores are in predicting losses?

Insurethebox have become very good at it! In the wider telematics market, different business models mean sometimes you don't need to be very good at this but sometimes you have to.

For example, with Try-Before-You-Buy (TBYB) apps, there is a strong level of self-selection so your score does not need to be very accurate. The same thing goes for Progressive's *Snapshot* model, as they install the device only for a short period. The customers you select will be better than the average anyway.

However, if you use your score to give away premium, the score must be much better.

In our case, we put a box in a car permanently and we have to extract value from that. So we use the score to reward our policyholders, at renewal and to risk manage our drivers with incentives and our portfolio.

Equally, claims forecasting is fully part of our brief. I expect that one

how does it all work?

three easy ways to reduce the cost of your car insurance by fitting a Clear Box telematics device

1. only pay for the miles you need
The Clear Box means you only pay for 6,000 miles, if you need to you can Top-Up your miles just like a mobile phone

2. being a good driver earns you additional miles each month
We will show you how you can earn extra miles each month

3. shop online through our portal & get additional reward miles.. just for shopping!
Get your miles in gear by shopping with our top name retailers

day, our algorithm will be able to forecast a claim event.

We have developed our models based on pure telematics data and **we have now reached a pretty excellent correlation with loss frequency.** We're getting close to the combination of traditional classification factors.

When we start to combine with these factors, we can extract a lot more from telematics data.

What are the biggest analytics-related challenges that you are facing today?

Each extra year of data makes the picture clearer for us.

At the beginning, we did not have data so I made it up based on 35 years of experience.

We have now collected almost 3 billion miles of data and all of the claims that come with it. We know the severity rate by type of claim. **We have the best database in the world** and we believe we have become pretty good in driver scoring.

The challenge is the next step: what to do with it? Do you have

the infrastructure to use these scores. **The challenge is to deliver the right message to the right driver at the right time!**

In other words, we are now excellent in static analysis and the next step is the dynamic, real-time nature of messages. You want to offer a specific message to encourage drivers, to give them a warning, to inform them about an accident hotspot, etc.

You need to **tap into the customer's psychology.** To achieve this, **you need an IT system that can process Big Data in real time and with very limited delays**. For example, we have kept our algorithm static for 18 months to build more efficiency in our front line systems!

Event-counting and thresholds are now often described as insufficient. What is your recommended approach to rating driving behaviour?

Counts are easy to implement. I prefer counting events but there are many ways to count events.

The signature of behaviours is what we are looking for. These

can be breaking, taking brakes, etc. We count these behaviours as events.

For example, how are you braking hard? We look at the pattern before, i.e. the sequence of events. And then we are looking for repeating signatures.

In any statistical model, you want to avoid over-parameterisation. The model has to make sense. We use our knowledge and import it into the model.

I don't really like data mining. You can't fish well unless you know what you are fishing for.

You don't believe in machine learning and artificial intelligence (AI)?

Of course it is important to keep up with the ability to extract Big Data with as many variables as possible. But there is no substitute for the injection of common sense in my view.

Even in machine learning, interpretation is required.

In the meantime, you must be able to explain your reward mechanism to the driver for them to drive better. The model has to be understandable by the customer and the customer care agent, which means it must be simple enough.

If you don't, there is a risk that customers will send complaints to the regulator.

What is the best compromise between the understandability of your policy by customers and the predictiveness of your score?

I think we are touching on the limits of telematics here. We know that you need to adapt your model. It may vary from country to country, and even gender to gender.

For example, certain types of roads do not exist in certain countries or you do not have road types with post codes. As this element is missing, you must find a proxy such as the speed limit on the road or something else.

You need to be very adaptive: **there can't be a one-size-fits-all approach**. The UK is a great market for that, as we have the least constraints in the world. So we have a very large dataset to apply.

What would be your concluding words?

I spoke about the future before dozens of new starters at Toyota on their first day of work in Japan.

I told them: "You are the luckiest people in the world", as we are experiencing a step change in technology development.

The next 20-25 years will see an explosion of real-time information and **telematics is the first real experience of the Internet of Things**.

The explosion of collected data will impact many domains: autonomous vehicles, autonomous hoovers, etc. Airbus has announced that it is working on flying taxis. There is an infinity of possibilities.

Interview performed on 18th October 2016 by Frederic Bruneteau