

Exploring Digital Futures for Insurance - Lego, Digital Horses, Betamax and an Oasis Part 2

Last time, we started part 1 of our 2-part journey into exploring digital futures for insurance. We looked at two key aspects: first, the emergence of low-code contract builders to facilitate the creation of computable contracts; and second, the development of 'plug-ins' to accompany the contract builders and that will undertake various value-adding activities across the value chain e.g. for payments.

Today we are going to look at: risk description, loss modelling, e-trading, AI and standards.

Risk Descriptor Models (RDMs)

The plug-ins will not be restricted to payments, but will encompass a range of functionalities across the value chain. Specialised 'risk descriptor modules' (RDMs) will become more commonplace, and will provide detailed descriptions of risks in a fully digital format. These digital descriptions of a horse, a building, a ship, an oil rig, a pipeline or a company will replace the swathes of the paper based submissions that we use today. Evidence of these is already observable in the market e.g. increasing use of digital services for creating more accurate and comprehensive commercial property schedules (as demonstrated by the emergence of businesses like Tensorflight - www.tensorflight.com). The digital representation of these risks will become both more expressive and more extensive.

The RDMs will employ standards to define the risks, but inevitably there will be multiple approaches used (especially in the short to medium term), just as there are multiple standards used today for the formatting of digital images (i.e. .JPEG, .GIF, .PNG). It will be incumbent upon the providers of contract building tools as well as the RDMs to make sure that they are interoperable. And, just as we have seen with other digital technologies, those approaches and standards that see greater use will inevitably become the dominant market standards (e.g. VHS establishing its commanding position over Betamax).

Loss Descriptor Models (LDMs)

Once risks are properly digitised, and in greater volumes, then the activity of loss modelling is also likely to become more of an open-market activity with a greater number of players. Loss modelling (e.g. for catastrophes, terrorist attacks, cyber attacks, flood) are very specialised, event-specific activities, ultimately providing the basis upon which the premiums are calculated for a specific risk. Thus, just as contracts will have RDM plug-ins, they will also have digital loss descriptor model (LDM) plug-ins, and both of which will work in unison to help calculate premiums.

A good example here is the Oasis Loss Modelling Framework (LMF). Essentially, by defining more open standards for the definition of risks (an early-stage RDM), Oasis (www.oasislmf.org) has developed an approach that enables a more inclusive approach to engaging the most suitable catastrophe modelling expertise. Computable contracting with RDM and LDM plug-ins would for example automate much of the required translation of insurance terms and conditions and further improve the efficiency that the insurance industry requires.

E-Trading

Of all the platforms deployed in the insurance industry, those used for 'electronic trading' (as they are known) are perhaps the ones that are receiving the greatest attention in terms of innovation and digitisation at the moment.

Essentially, these platforms seek to match and combine the appetite for risk among one or more insurers with the insurance cover required by the customer. At the moment, the details of the risk are contained in the slip (which may be digitised), and which provides the basis for the negotiations that follow.

With the emergence of computable contracts, there will be a direct link between the negotiated contract and the risk matching (trading) platform. The results from the broking activity will be assumed by the computable contract, automatically creating links between the computable contract and the insurer, and also ensuring that all post bind processes can be instantaneously executed.

These e-trading platforms will also therefore have a plug-in-type functionality, and it may well be that a single contract is served by more than one e-trading plug-in (trading platform). This direct link will enable a much more fluid flow of information between market participants with the contract very much at the centre. With the market participants having controlled access to portions of the contract in order to suggest amendments, the time spent for post-bind processing is (as we discussed in our previous article - 'Binding to Processing in a Heartbeat') significantly reduced.

Artificial Intelligence - From Trawling to Optimising

At the moment, most AI-based applications in insurance involve trawling through unstructured data to establish a range of insights. So for example, we might analyse a body of contracts to discover the percentage or value of contracts that fall into a certain category of compliance. However, had the contracts been created with greater structure from the outset, there would be no need for this form of AI application - the information would simply be available as a result of a better underpinning information architecture.

The future of AI in insurance will be concerned with trend-spotting and optimisation, not primitive fact-finding missions. Contracts will be optimised in order to provide the best form of bespoke coverage, and through aggregation, more intelligent linkages will be established between business development and capital management.

Open Standards for Generativity and not just Data Exchange

Because the insurance industry spends much of its time trying to exchange data between various platforms, and where inevitably there are inconsistencies, the majority of standards are based around data exchange.

The standards of the future must embrace the idea of generativity. What does this mean? In a word 'lego'. With a relatively small number of standard pieces with standard connectors, we can put together an infinite number of models. Furthermore, some of these models may contain modular 'sub-assemblies' to make the process of creation quicker and easier.

The future of data standards for insurance is just as much about linkage as it is about form.

From Chief Data Officer to Chief Information Architect

At the moment, there is a lot of talk in the market about data. There is less said about algorithms, but without which a lot of data is useless. In fact, contracts contain a rich variety of information that include rules and algorithms and are crafted with a high degree of expertise. It therefore follows that, in addition to managing data (but not necessarily 'big data'), the insurance industry should place equal emphasis on the information design that underpins intelligent decision-making for risk/capital and claims management.

We mentioned 'knowledge engineers' in our first article; and thus, in an industry with computable contracting at its core, maybe we should be talking about Chief Information Architect rather than Chief Data Officer.

A Practical Next Step

Again, it is sometimes easy to paint a picture of the future without actually indicating how one might actually get there in terms of practical steps. Throughout these blog posts, Axiome Partners is also outlining some key aspects of the projects that we are working on. As indicated, one of these is the importance of building links between digital objects. So for example, we are looking at the connections between different parts of the contract, and often where no explicit connection has been made. This emphasis on links, and not just data, will help the industry to achieve its full digital potential.

Next Time

Now that we have described some of the technologies that will populate a digital future for insurance, the next installment, number three in the series, will look at aggregation and portfolio management. It will emphasise that while automation is important, decision-making is more so, and this can only be achieved through a transformation in information architecture. Thereafter, our fourth article will envision a future for standards to help make it all happen.

John Cummins and Alastair Burns, October 2020