

Exploring Digital Futures for Insurance - Lego, Digital Horses, Betamax and an Oasis Part 1

In a way, an insurance policy can be thought of as the product that the insurance industry manufactures. It is in essence a promise to pay with payment obligations for both the insurer and the insured. That said, it is often seen as merely the by-product of many carefully considered connections and decisions. Yet it is the policy (as a legally-binding contract) that drives all of the activities across the entire insurance value chain, from the creation of the contract right through to its expiry.

Despite the central role the insurance contract (or policy) has, it is curious to observe that the contract itself has yet to be properly digitised. The insurance industry is awash with various technologies that help to achieve relatively small efficiency gains here and there, but they have not addressed the elephant in the room: the full digitisation of the contract, both in terms of its content and its representation. Only when significant progress has been made on this front, will the long-promised gains from digital technologies be realised.

Hence, with the potential to transform the insurance industry, 'computable contracting' approaches aim to achieve just this: fully digitising contracts so that they are readable by both humans and computers. The trick is to create contracts so that they are: a) understandable and intuitive to humans, because of their mode of representation; and b), processable by computers, because of they have sufficient in-built structure and logic, which in turn will support **process automation** and cost reduction (e.g. to improve claims) or **information aggregation** for better decision making (e.g. capital allocation and business solvency).

This short article seeks to explore a future technology landscape for insurance that is driven by a number of approaches that are aligned with computable contracting. And while a computable contracting vision for insurance will possibly take a decade to be fully realised, we can take a number of useful and pragmatic steps in the short to medium term that will help us to move closer towards this vision.

This future digital insurance landscape will be populated by technologies that are different from those we see today, and the vocabulary we use will be correspondingly different. It is hoped that this two-part article will aid your own preparations for this future.

The Act of Creation - Contract Builders

For those of you who are familiar with building a website, the days of having to code are long gone. With what are known more generally as 'low-code' (or even 'no-code') platforms, digital objects - like websites - can be created from scratch by someone with little or no programming experience.

For insurance professionals, it is domain expertise that counts, and it is vital that this expertise can be deployed without having to slog through learning a programming language. The 'Powerpoint experience' is a good example - users are able to do what is essentially computer aided design with very little training. And, just as we create a LinkedIn profile using our digital common sense, we will create computable contracts for insurance with the appropriate tools.

These contract builders will allow text modules (i.e. clauses and conditions) to be designed, modified and linked in a controlled way. An expert guide will ask pertinent questions as these text modules are woven

together. Where one or more text modules are underpinned by a set of calculations (e.g. for premiums), then the formula and variables will be defined by the user in a very intuitive way. It is important, however, that the means of expression (i.e. a 'very high-level language') is sufficiently nuanced so that a subject expert is confident that it is adequately expressive, and that the details of bespoke situations are not lost in broad oversimplifications.

There is another important point that comes to the fore here: this content creation process must encompass data **and** rules, and **not just** data. Too many contract automation initiatives focus on the data alone (as fixed fields within some kind of template) and they leave out the rules. The logic is then left to the programmer, who creates code for (often quite-bespoke) rules, quite separately from the contract, and usually in a much less transparent way. In short, **rules standards are as important as data standards for cross-market interoperability**.

From Platforms to Plug-ins

The insurance industry involves entering (and often re-entering) data in multiple platforms across the value chain. Seamless data exchange is problematic, and, the contract, effectively, sits in a digital folder as a pdf, or even as a paper document in a drawer somewhere.

There is too much emphasis in the industry on processing platforms. In our previous article, we emphasised that fundamental redesign should always precede digital automation. Many of the processes in the insurance industry (and the platforms created to support them) are not a fundamental requirement, but more a reflection of the immature state of the data we use today. Through reshaping the data with both structure and intelligence, many of these processes will become simpler and may well disappear altogether. This will enable an ecosystem of plug-ins to emerge, something today we would call 'outsourced services'.

So, for example, once the information concerning premium payments has been established as an element of a computable contract, a 'payments plug-in' may be used to undertake the obligations outlined in the contract. With one fell swoop, we have eliminated a whole range of data transfer and processing activities, as well as the platforms that support them, an activity that insurance professionals should not be spending time worrying about.

This concludes Part 1 of this article. In the next few days, we will continue with Part 2 and look at other technologies in this emerging landscape. This will include risk description, loss modelling, e-trading, AI and standards.

John Cummins and Alastair Burns, October 2020