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Data, Automation and the future of the GI Actuary

Martin Noble

8th SAS General Insurance Conference
Singapore, 26-27 May 2016

15 November 2016

Agenda

- The power of embracing Data Science techniques for a GI insurer
- The importance of Data Quality
- The power of automation and robotics
- Can actuaries stay relevant in this changing world?
- What does an ‘actuarial team’ of the future look like?
- The IFoA’s cross-practice MAID working party

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The power of Data Science techniques

- Applying data science techniques in an actuarial context – potential areas of impact:

	General Insurance	Pension	Life, Health & Care	Investment
Pricing and product design	✓		✓	
Reserving	✓			
Capital Modelling	✓		✓	
Exposure Management	✓			
Scheme Valuation		✓		
Valuation & Surplus Distribution			✓	
Asset & Liability Modelling				✓

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The importance of Data Quality

- The potential up-side for embracing Data Science might clearly outweigh the down-side – not to mention the potential competitive disadvantage for those last to the scene – but…
- …We must still seriously consider Data Quality:
  - There are too many examples of ‘lessons learned’
  - How credible is ‘new’ data?
  - In the excitement of new possibilities, the tedium of ensuring data credibility can easily be forgotten but must not be overlooked
- Regulatory and privacy lines can be more difficult to maintain

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The power of automation and robotics (1)

- Significantly increasing demands for GI actuaries puts pressure on deadlines and already creaking processes
- Time taken to invest in automation and robotics can make a huge difference to work-flows, efficiencies and team dynamics
- Ultimately, the aim has got to be about re-focusing actuarial time towards value-add activities
  - Solutions to new regulatory demands can be built on existing reserving infrastructure, rather than a revaluation of the end-to-end process
  - Flipping the balance of time spent so that generating and communicating actuarial insight is the main item on the agenda
  - Incidentally, this tends to be good for team morale

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The power of automation and robotics (2)

- e.g. the reserving process
  - Automated and flexible diagnostic infrastructure allows trends and cuts of data to be more easily monitored
  - Automated ‘analysis of change’ allows focus on communicating the change, not analysing it
- e.g. the end-to-end reserving and solvency process
  - Payment patterns flow from one piece of the analysis to another
  - Automated waterfall graphs to ‘walk’ from one reserving basis to another
  - Ownership of the various stages of analysis can be more easily integrated rather than managed in siloes

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Can actuaries remain relevant?

- The evolving role of an actuary in a digital world
- As innovative areas of data and analytics transition from ‘new and sexy’, to ‘established and responsible’, a clear opportunity exists for Actuaries to take a leading role in applying professional standards and skills
- Some opportunities are much talked about
- Others will emerge as insurers tackle the data landscape, develop workforce structures and alter go-to-market and internal KPIs

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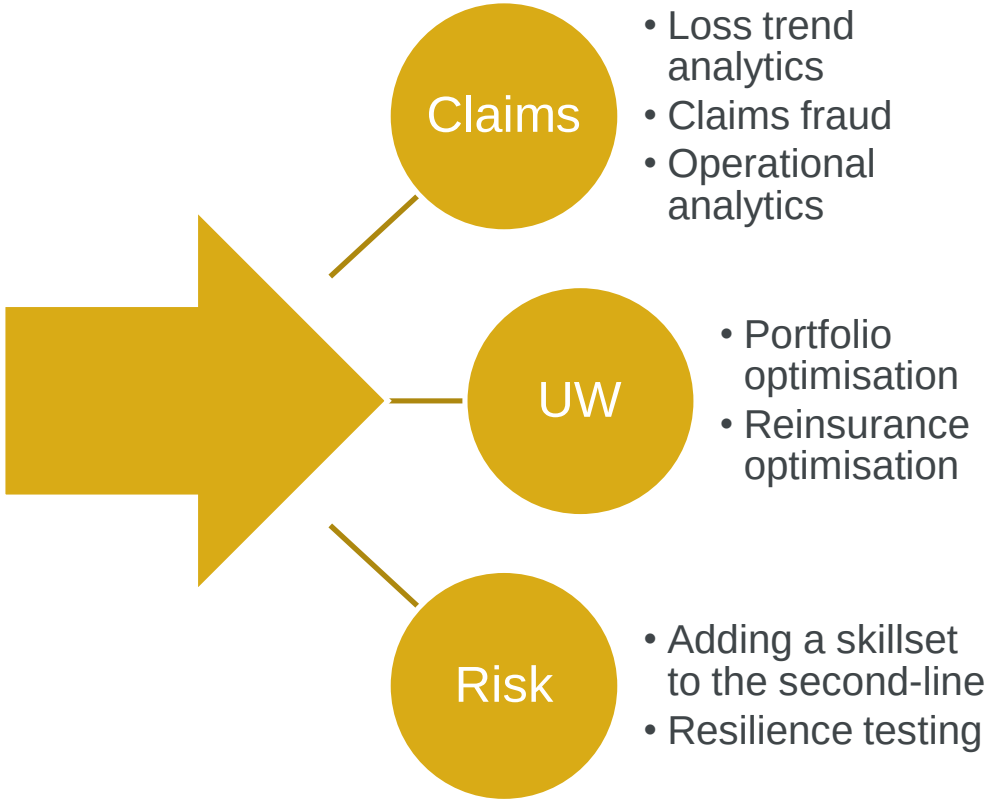
The actuarial team of the future

- A team with a diverse set of skills for the task at hand
- Separate actuarial department, or actuaries integrated within the business?



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Modelling, Analytics and Insights from Data (MAID) IFoA working party

- The working party kicked off its planning work earlier this year.
- It is joined by about 40 enthusiastic volunteers across different practice areas.
- The working party has organised itself into 4 work streams, encompassing:
  1. Research;
  2. New approaches to current actuarial work;
  3. Possible ideas and solution in new opportunities from actuarial work;
  4. Implications for professional affairs.

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Questions

Comments

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