



Working Party Research Topic/Title:-	<b>Artificial intelligence and automation</b>
Practice Area Research Committee Member Shadow:-	Scott Eason (Life), Scott Reid (Health & Care)
Source of idea/"Initiator":-	Life conference survey 2018
Working Party Chair:-	TBC
What issue is this research topic trying to address:-	How will AI and automation change the future role of life and health & care actuaries and how does actuarial practice need to evolve? Covering all areas of actuarial practice in life and health/protection insurance: pricing and product design, reserving, ALM, capital management, investment...  Specific questions to be answered - see Appendix:
Who will be the audience for this research:-  <i>(We need to understand who we believe this research will be of interest to – to ensure we have an end consumer for the research)</i>	Life and Health & Care practitioners and their employers, PRA and FCA
What do we see as being the output/deliverables of this research:-	An article for the actuary, LinkedIn blogs and ultimately a paper published in the BAJ, presented at a number of conferences and regional societies. Suggest we aim for a webinar given it is of international relevance and the subject!
What are the time scales of this research:-	6 months
What previous work has been done in this area recently, within the profession please email <a href="mailto:libraries@actuaries.org.uk">libraries@actuaries.org.uk</a> , other professions/academia:-	Hot topic, but no formal research to date – IFOA Librarian will undertake a literature search.
Will 3 <sup>rd</sup> party data be used? If so a protocol will be developed to support you	No
Proposed membership:-  <i>The IFoA is registered as a Data Controller in terms of the Data Protection Act 1998. The contact details provided (i.e. names and email addresses) will be shared among the members of this working party, the Practice Area Research Committee and the relevant Practice Area Board in relation to the research topic detailed above. The information provided will be used for the purposes of facilitating the completion of the proposed research. The IFoA will not pass your personal information to any other third party without your consent. If you would prefer that your details are not shared in this way, please contact a member of the Practice Executive (<a href="mailto:practice.executive@actuaries.org.uk">practice.executive@actuaries.org.uk</a>)</i>	
Additional volunteers required:-	
Frequency and type of meeting:-	Fortnightly via telephone and weblink



<p>Engagement with external stakeholders – Public Affairs will support and arrange for you</p>	<p>Suggest we look to discuss the subject with PRA once working party has been set-up</p>
<p>IFoA resource and support required:-</p> <p><i>The Practice Executive and Research and Knowledge teams can offer various levels of support during the life of your working party; however we would ask that a member of your working party be responsible for keeping minutes or action points from each of your meetings.</i></p> <p><i>It is important that the working party provides updates to the Practices Manager on an on-going basis, preferably after every meeting. This will ensure that the Board and other committees are kept informed of the work of the working party.</i></p>	<p>Expect they will want to perform a survey of actuarial employers (life insurers, life/health consultancies) to get their views on this subject.</p>

## **APPENDIX**

### **Suggested outline content of a paper**

1. Background
  - a. What do we mean by AI and automation and what are the potential solutions that could be applied in the Life and Health & Care practice areas?
  - b. Where have these practice areas got to so far with applying AI and automation in the UK and internationally?
  - c. What do practitioners think are the most likely immediate uses for AI and automation in the workplace in the next 12 months, 24 months,
  
2. How could AI and automation change the role of an actuary within life and health/protection (re)insurance in terms of:
  - a. Pricing and product design – greater availability and analysis of data and use of algorithms in product design and pricing.
  - b. Reporting – reducing reporting timeframes, improvements in quality assurance
  - c. Capital and investment management – monitoring and optimisation of balance sheets and trading algorithms
  
3. Regulation – how does regulation need to evolve to support the greater use of AI and automation in the Life and Health & Care practice areas?
  
4. Actuarial education and training – is there a knowledge and skills gap that needs to be filled to ensure that Life and Health & Care actuaries are appropriately skilled to ensure their companies can use AI and automation effectively and safely



**Template for Terms of Reference for New Working Party**

(In conjunction with the 'Guidance for Member Led Research Working Parties' and the Volunteer Induction Pack)

**Legal Issues to Note**

**Intellectual property issues**

As our members and the wider public will appreciate, we want to ensure that the work produced by our working parties remains the intellectual property of the IFoA and not of individual members, their employers or of the working party itself. This means that that work can be used and disseminated by the IFoA to its members, stakeholders and the wider public to advance all matters relevant to actuarial science and promote the work of the wider actuarial profession.

The IFoA is very grateful to the members and their employers for the time, effort and work which is devoted to the working parties for the shared benefit of all members and the public. However, we also appreciate that employers may have their own intellectual property rights in that material – or even license it to/from third parties – and we need to make sure that the working party is not using that material without the employer's, or third party's consent. Members should remember that they need to get the consent of their employer or relevant third party to bring that material to the working party to use.

In recognition of the support provided by individuals and their employers, all material which is permitted to be used will, of course, be credited – noting the sources or contributors by name in the final work product generated by our working parties. Employers can also raise their own profile by allowing staff to sit on working parties and to have their firms acknowledged as supporting contributors in the final products.

The IFoA has some very short consent forms for our members to use if they do wish to use their employer's or a third party's work which will enable the Executive to compile a list of contributors to be referenced in the final work product. Please approach your relevant Practices Manager for more details. Again, the IFoA cannot provide members with advice in relation to intellectual property law and members may need to consult their own in-house lawyers or external legal advisers about this if they are in any doubt as to their obligations or if they have any concerns.

**Further guidance**

- The [UK Intellectual Property Office](#) has some helpful guidance for members on basic intellectual property issues.
- The World Intellectual Property Office's website also provides some [helpful guidance on intellectual property matters](#).

**Competition law issues**

It is the IFoA's policy to comply with competition law – this applies both to the IFoA itself and to our members. Some working parties will come across competition law issues due to the nature of their research work. Members who are on such working parties must be aware of this issue and be prepared to take steps to avoid any breach of the relevant competition laws.

We have produced an informative video clip which sets out some helpful guidance that working party members should bear in mind regarding competition law. However, we cannot provide advice to members, individual members may need to consult their own in-house lawyers or external legal advisers about this if they are in any doubt as to their obligations or if they have any concerns.

For members who are interested, the IFoA has also produced a short note on competition law issues which may impact our working party members. (See Appendix B, page 15)

**Further guidance**

The Office of Fair Trading (OFT) investigates competition law issues and has some [handy guides](#) which members might find useful.

The OFT also mentions the [Competition Pro Bono Scheme](#) which offers some free legal advice to individuals and businesses who believe that their rights under competition law have been infringed or who are concerned that they may be in breach of any relevant laws. Members may also find this useful.

**Conflicts of Interest**

Consider any conflicts of interest issues which might arise by virtue of a member's membership on the working party and which might breach the [Actuaries' Code](#) provisions