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New Generation Broking

Special report on AI & Broking

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An Introduction to Artificial Intelligence in Insurance Broking

Outline of the Next Generation Programme, Our Project and Definition Of AI

What is New Gen?

The CII New Generation Programme is an annual year-long talent initiative, which sees 40 up and coming professionals split into Broking, Underwriting, Claims and London Market groups. The teams are asked to identify and complete a project that could make a difference to the industry, presenting their campaign the CII and senior industry figures at the end of a 12-month period.

What is the aim of our project?

The CII New Gen 2024 Broking project explores how insurance brokers can harness the power of Artificial Intelligence (AI) safely, and effectively with clients in mind. This whitepaper will delve into the opportunities and challenges of integrating AI into broking practices, ensuring that brokers, regardless of their experience, can modernize their approach whilst prioritizing the security of customer's information.
Our aim is to provide practical insights tailored specifically to insurance brokers, whether they are beginning to understand the potential capabilities of AI or looking to optimize their existing AI strategies. This whitepaper will equip brokers with the knowledge and tools needed to thrive in the evolving broking marketplace.

Why AI?

Artificial Intelligence (AI) has a rich history, dating back to its inception in the 1950s by Alan Turing. At its core, AI harnesses the power of data analysis to enable computers to "learn" patterns and formulate responses. In the context of insurance broking, AI holds immense potential to revolutionize various aspects of the industry, from marketing strategies to claims processing.
Within this whitepaper and complimentary social media posts, our cohort has focused on the below topics which we see as pertinent to this topic and our objective:

- How the Insurance Industry Can Benefit from AI
- Implications of AI & Potential Challenges
- Regulatory & Risk Considerations

There will also be a recording of AI experts from our panel event on 5th November 2024 published online, and will be viewable on the CII website and on LinkedIn via the CII's profile.

How the Insurance industry can benefit from AI

The AI revolution is beginning to permeate through mainstream financial services and has begun to take a hold in insurance broking, AI has already made its mark on the industry, the potential for this to change the insurance landscape is massive. AI will soon become ubiquitous throughout insurance, with many of the larger brokers developing specialist roles and teams to see out its integration.

AI tools are becoming widely accessible, and they are changing brokers' day to day operations and redefining the customer journey. Foremost AI is changing the industry from a *detect and repair* to a *predict and prevent* mindset; the pace of this is likely to accelerate in the coming years as AI improves decision making, reduces costs, and optimises the consumer experience.

By leaning into AI, brokers can gain a competitive advantage, improve their efficiency, reduce their E&O risks, and improve their customer service. Moreover, in recognising the value that AI brings, brokers can start to build talent and create a company culture that is needed to be successful in the ever-changing insurance industry.
The role of insurance brokers has changed and will continue to change as AI becomes more prominent in the industry.

To combat the loss of talent due to retirement, brokers are relying on technology and AI to increase their productivity. AI Tools will help brokers maintain a diverse client portfolio, whilst also making interactions more meaningful, as AI improves brokers' ability to better understand their clients' demands and needs, and tailor policies accordingly.

Perhaps the most impactful benefit of AI is efficiency and savings; daily tasks, like data entry, and policy distribution can now be easily automated. The knock-on effect of this is brokers have more time to focus on the more complex tasks and to better understand and serve the needs of their customers. AI Automation of processes like these leads to cost savings, boosting the bottom line and reducing the overall group expenditure.

AI thought experiment

You are a doctor, it is important that you see patients to help them with illnesses and ailments, your ultimate aim is to help your patients to live longer, and healthier lives. There are many caveats to this and while doing consultations is probably the most value-added portion of your job to patients, it's a necessity that you must write prescriptions, take notes and maintain high quality records about the health and medication of those in your care. The issue is, the administrative tasks erode your time on the job, achieving your actual goals. This is where AI can be deployed, it won't take the job of the doctor, nor will it take the job of their receptionist, or the cleaner, AI will help take tasks away from doctors to ensure they can deliver more time face to face and adding value.

In much the same way, a broker's job and the handlers around them, their entire infrastructure will not be at risk. The broker, by utilising AI, should be able to spend more time doing the broking, seeing clients and giving advice, while leaving the AI to file reports and take notes. AI will optimise the broker.

The digital age has changed consumer expectations for both brokers and insurers, consumers want quick, smooth transactions, offering value for money. AI can assist in meeting these expectations by giving efficient, personalised customer service and it has been integrated in a similar way to banking or even eCommerce. Tools such as AI chatbots or virtual assistants now offer 24/7 support, logging claims and handling customer queries, with superb efficiency without the need for human intervention. These AI tools learn by gathering data on evidence from other human interactions and data scraping, continuously assessing the quality of service at each customer interaction and looking for ways to optimise. Early indications of the use of AI show increased levels of customer loyalty and satisfaction, which is essential for maintaining and building a market share in the industry. This is particularly true for smaller brokers who might not have access to the same resources as the large national or global brokers who benefit from other efficiency and budgetary advantages. This means that artificial intelligence could be a key driver in levelling the playing field, for and increasing competitiveness between brokers and insurers of all sizes.

AI will also help brokers improve their approach to assessing and managing risks. AI can review and analyse copious amounts of data and identify trends and patterns that the human eye cannot see without investing a huge amount of time – some insurers are already using this information in the cybersphere, for example, to supply cyber insurance policies, and the data is used to help insurance buyers take preventative measures to improve their cyber posture, in turn benefiting from lower premiums and wider cover. Of course this will help to optimise in the supply chain, ensure adequate disclosures for clients as well as brokers and improve risk management in all insurance disciplines.

AI and its impact on ESG

AI could also help to improve Environmental, Social, and Governance (ESG) practices, and feedback to businesses and brokers about their ESG goals, as well as how well they are to achieve their objectives. With the FCA prioritising ESG as part of commitment 8 in its 2024/2025 business plan, AI can help address issues in the following areas which will allow brokers to adhere to likely future regulatory standards.

Environmental Impact: AI can help address environmental challenges by enabling more efficient resource management, reducing waste, and optimizing energy consumption. For example, AI-powered algorithms can analyse large datasets to identify patterns and optimize energy usage in buildings, leading to reduced carbon emissions. AI can also be used to monitor and manage environmental risks, such as detecting and predicting natural disasters or monitoring air and water quality.

Social Impact: AI can contribute to social impact by improving access to services and promoting inclusivity. For instance, AI-powered chatbots and virtual assistants can provide personalized support and information to individuals, enhancing customer experiences.

Governance Impact: AI can enhance governance practices by improving transparency, accountability, and risk management. AI algorithms can analyse large amounts of data to identify potential risks and anomalies, helping organizations make more informed decisions. AI can also assist in automating compliance processes, reducing human error and ensuring adherence to regulations and ethical standards.

Implications of AI and Potential Challenges

Job Loss

A large national newspaper has recently issued an article stating that almost 8 million UK jobs could be lost to artificial intelligence, highlighting that women, younger workers and those on lower wages are most at risk. This scaremongering has built traction over recent years and has caused great concern for those of working age, with 32% of people fearing that AI could put their job at risk.
IBM are a key supplier of AI and have been marketing their ChatBot to insurance and broking companies, listing impressive results:

As IBM suggest, generative AI is already being widely used in the form of chatbots on insurance company websites. As these bots 'learn' to respond to customer queries, they may begin to replace lesser skilled customer service roles and reduce the need for human interaction. Additionally, as AI increasingly analyses and reviews data, it will begin to free up resources to carry out other tasks, negating the need for further hires and possibly even resulting in redundancies. The fear for many is that there will be an erosion of entry level jobs for graduates or school leavers to enable them to begin their career in insurance.
https://www.ibm.com/products/watsonx-assistant/insurance

Cost to Implement

As AI gains popularity, cost to implement and maintain the systems necessitates that the cost will increase, and product development within the space will likely lead to specialised service offerings and a multifaceted cost structure. It's likely that insurers and brokers will have requirements for multiple different AI products, including chatbots and many other types of AI. It is also fundamental that any AI tool developed complies with regulation, including data protection and FCA requirements. It is estimated that even basic AI systems could cost upwards US$ 50,000 and this does not include the implementation costs across the business nor the ongoing updates to ensure that the tool remains relevant. Cost barriers can lead to struggles in utilising the latest in AI tools and may mean that AI projects might in future have accessibility issues for smaller brokers. Companies within broking may find that they simply cannot afford to implement an AI tool, which could give those cash rich businesses a further competitive advantage when attracting and servicing customers. It would also likely impact the large businesses ongoing costs (including recruitment, talent and wage roll) to further improve their margins making it yet harder for smaller firms. The likely scenario here for smaller brokers is a 'damned if you do, damned if you don't' situation, whereby cost to implement is higher in the short term but cost to not implement is higher in the long term – this is potentially where early adoption might be critical for smaller but agile and technically savvy brokers, allowing them to can capitalise.

Implications of AI and Potential Challenges continued

Data Protection and Cyber Risk

Machine learning techniques depend on large training datasets; this may include the processing of personal and sensitive data which poses a cyber security risk. With such a huge amount of data being fed into these systems, there is a potential for misuse – however, AI can utilise Data Access Controls which analyses user behaviour to identify potential unauthorized access or misuse allowing anomalies to be flagged, if deemed suspicious. Brokers should look to utilise AI algorithms which can anonymise and de-identify data whilst preserving the utility of the data for analysis – this means organisations can benefit from model outputs without the raw data being exposed.

The UK Information Commissioner's Office (ICO) has issued specific guidance on AI and data protection which has gone some way to clearing the uncertainty around cyber risks, with the updated guidance making it clear that it needs to be shown that a business has considered 'less risky alternatives' that achieve the same result as AI and justify why these alternatives have not been chosen. Realistically most organisations will look for a competitive advantage and although consideration for other solutions might be investigated, once the use of AI is widespread it will be a necessity to both manage cost and optimise the customer experience.

Some companies within the industry may choose to outsource their AI system to a third party to minimise costs and reduce technical issues. Although there might be many benefits to this, by not keeping the AI in-house it could result in significant privacy and security issues, therefore it is imperative that any outsourcing providers have robust data security protocols in place.

Possibly the greatest concern with AI is human error. When ChatGPT was first released, many people created an account and begun to experiment with it. This led to some companies issuing guidance that the chatbot should not be used on work computers, or to carry out tasks relating to the business. The concern was that many employees had already started to experiment with customer data to simplify their own work tasks and potentially breaching internal workplace policies and, perhaps, data protection law.

Brokers must ensure that they have robust data privacy and security measures in place to protect data when using AI software from unauthorized access or breaches. This can be harder for SME insurance brokers when it comes to ensuring sufficient cyber controls are in place if using third party AI software, versus a global broker who may have their own AI learning software designed in house i.e. Marsh LenAI. When integrating, brokers must ensure strict cyber risk controls are in place to limit a breach whether this be internal or via an outsourced service provider. Because AI use is so new however, currently a lot of the risks might be theoretical, albeit the data suggests that threat actors are searching for ways to exploit any working system. Penetration testing might be one effective way to mitigate the cyber threat risk, however zero-day attacks (particularly for large firms) will also be a risk.

Bias and Differing Results

AI systems will base their responses on data they are presented with and often, depending on the data model, they will also base it upon a selection of a 'data scrape' (a huge selection of language model data which the model study and use know how to respond), or AI will base its answer upon its own AI learning algorithm which again will give answers relative to its learning environment. The basis upon which they reference their response will mean that they often produce a bias simply because the source data will also inherently produce a bias. There are five main types of bias which can result from AI, the following 3 are most relevant to the insurance industry:

Implications of AI and Potential Challenges continued

Selection Bias:

Selection Bias occurs when the sample data used for the system is not a good representation of what it is meant to model. For example, an insurance broker's use of data from FTSE 100 companies to identify the average directors and officers limit of indemnity purchased. If a full dataset from all sizes of company is not available or used, a selection bias will occur. In this event evidence will suggest limits suitable for FTSE companies, but not for SME type risks.

Confirmation Bias:

Confirmation Bias occurs when a system relies on current data trends, this might occur with data sets that are highly changeable or subjective. For example, an insurance broker could use previous AI data to predict rating increases on their client's cyber insurances, however, we are slowly leaving the hard market so pricing trends from recent years will unlikely produce accurate results for 2024/25. Rapid changes in market information would mean that the AI wouldn't keep up with the trends, and agility is key to ensure competitiveness for most brokers, especially in softening markets.

Measurement Bias:

This type of bias occurs when the data differs from the actual variables at play. In measurement bias an AI model is used to predict customer retention basing the loss of customers on those where a letter of appointment for a different insurance broker has been received. This could produce bias as it does not take account of those customers where the company has become insolvent or ceased trading and therefore negating the need to purchase insurance.

AI is also susceptible to manipulation. In January 2024 a member of the public encouraged a large parcel delivery company's online chatbot to write poems about its "unreliable" service. This is a concern for AI systems within the insurance industry where a 'savvy' user could manipulate AI. Where more businesses become reliant upon AI it has the potential to lead to higher costs and damages, and therefore AI users should exercise caution and monitor for inconsistencies in their activities.

The results generated by AI depend on the instructions given and the AI model used. This means that two AI models could be asked the same question and produce a different answer. This variance could prove beneficial for customers where two different insurance companies review the data set provided in different ways resulting in one being able to write the risk and another concluding that it is too hazardous. This could also be of a detriment, when employees are given differing answers when providing advice to customers, this necessitates the need for regular benchmarking and provision of a contingency.

As AI technology develops, the insurance industry must continuously update and adapt the training delivered to employees to ensure that they are able to realise the full value of this investment in AI technology. Employees need to be guided on using new technology to ensure that the very best results and clients are protected. As with all changes to processes, technology and systems, some brokers and insurers might not be willing to undertake the learning or reallocation or resources to utilise AI, in a similar way to when the computer took over paper files.

Regulatory & Ethical Considerations

AI utilisation is becoming more widespread, insurance and broking are prime markets for AI advocators. However, one of the issues with implementation of AI is that regulation of the technology is still emerging and even in unregulated markets it is difficult to ascertain how customers might be best protected from it, especially when the average user doesn't understand how it works, or the risks it presents to clients and data. However, given that AI is becoming strategically important for governments & businesses across the world there is a clear call for the utilisation of AI technology and generative learning.

"The increased visibility of the technology's risks has led to ever-louder calls for regulators to look beyond the benefits, and secure appropriate regulation to ensure AI that is 'trustworthy' – i.e. legal, ethical and robust." – (Smuha et al, 2021)

When faced with the choice of AI and no-AI, by not adopting the technology this will leave many countries (and market sectors) in disarray, simply because of the staggering results that can be earned from AI usage. It is evident that regulation needs to keep pace with AI, insurance & broking businesses should heed warnings – they will be the ones to bear the responsibility to deliverer key learning, regulatory improvements and mould the regulation to both protect the clients and the industry.

Currently, AI can complete document checking and policy production for example, however once the technology becomes more mature, the industry will benefit from the use of more qualitative data. Until then, it is paramount that the industry and regulators keep AI in a 'sandbox' environment and limit its use to simpler functions, like task management or administration.

Beyond Regulations - The Ethics of Using AI

Although the potential for AI to augment our work is exciting, there are examples of where AI has had a not so positive impact. For example, in 2016 a Tesla self-driving car killed a pedestrian, and in 2017 Microsoft's chatting bot Tay had to be shut down after 16 hours because it became racist, sexist, and denied the holocaust. These are potentially examples of bias which have been garnered from large language modelling, and the results are both worrying and dangerous for those who become dependent upon the output of AI models for their work, or even outside of work. These incidents lead to several questions:

- Who has responsibility for the losses caused by autonomous driving?
- If a business, whether broking or not, uses AI to deliver advice, who is held accountable for the E&O on behalf of the AI?
- How can we ensure we treat customers fairly if AI seems to have inherited biases?

When examples like this highlight the human impact of AI 'gone wrong', it should be considered whether AI poses less or more risk than a well-intentioned human user.

In this way, brokers should consider the ethical implications of using AI in their operations which includes, but is not limited to, ensuring that systems are fair, transparent, and unbiased in their decision-making processes. Brokers should not rely solely on the output AI generates and should check it for any bias/corrections and scrutinise the content and output it generates. It is important to avoid any potential discrimination or unfair treatment of customers which can harm the brokers imagine and their market presence.

Along with the above, brokers should consider the use of AI and conclude that its use is being used for the right reasons and not being exploited. Information being used by AI should be of benefit to the person it relates to and not just the broker. It is important to think about the Financial Conduct Authority's guidance in relation to fair treatment of customers, whether AI can produce good quality effective outcomes, and ultimately adhere to the principles set out by the regulators. By leveraging AI to cut costs and increase the agility to deploy resources brokers potentially create additional exposure and undermine the point of the systems.

How should insurance businesses prepare for AI?

- Educate themselves on AI technology - understand the possibilities of AI and unpick what functions it can do for you, and critically how you can use it safely. Brokers should risk assess functions – understand the worst-case risk, and plan for it.

- Plan for if things go wrong - research data compromise, and how your business can effectively protect data, even with integration of AI. Research shows that by 2030 there will be 30 billion connected devices, making it easier than ever for threat actors to infiltrate networks.

- Create training and ensure you have the right talent - The top 10 jobs for graduates today, didn't exist 10 years ago - the same can probably be said for the next 10 years. We have many people leaving the industry, and a skill gap will emerge, however, the skills of the next generation of insurance personnel will be less focused on technical specialists, and more on those that have AI expertise.

- Create a culture of responsible use - Do not become wholly dependent on AI, not least because skills may not be replaceable, but also because there are weaknesses, as discussed above. Always have a capable person who can interrogate the decisions around AI and always have someone who can assess the compliance of the AI outputs, never leaving it unsupervised.

Conclusion

The excitement surrounding AI is warranted – it has already revolutionized the insurance industry, for example through underwriting, claims processing, customer service, placement and risk management. This trend is set to continue for the future and perhaps the true capabilities of AI remain unknown at this stage.

As this document has explored, there are major benefits surrounding AI which pledge to transform the insurance landscape forever. While it is important to remember there are also weaknesses and wider considerations which need to be reviewed. This interplay of promise paired with challenges will likely continue moving forward as this technology evolves.

The regulatory landscape for AI is a complex and emerging topic. Various jurisdictions and organizations have been actively working on developing rules and frameworks to govern the use of AI technology, however there is still a fragmented approach. The focus is on balancing the potential benefits of AI with mitigating its risks and ensuring privacy, fairness, and security. Collaboration between governments, organisations, and businesses is crucial to develop effective and globally harmonized regulations for AI.

Appendix

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