RIBO's Initial Exploration of Artificial Intelligence ("AI") Innovation in Ontario's Property and Casualty Insurance Broker Sector

Foreword

RIBO's 2022-2025 Strategic Plan established a path toward modernization. Naturally, these advancements have led us to consider current and potential applications of Artificial Intelligence ("AI") by both Ontario's brokers and within our own operations. To this end, RIBO commissioned this research into the current applications of AI in Ontario's general insurance sector.

The research explores whether RIBO's regulations and existing frameworks such as the *RIBO Code of Conduct* and the *CCIR-CISRO Conduct of Insurance and Fair Treatment of Customers Guidance* adequately address the regulatory challenges posed by AI innovation. By developing an improved understanding of AI and its applications within the industry, RIBO can be better equipped to address these challenges.

RIBO firmly believes in the value of collaboration. By working alongside other regulators, we can explore opportunities for joint research and shared insights. This research serves as an initial roadmap, guiding us as we reflect on existing frameworks. Together, we can support fair treatment of insurance customers by establishing appropriate guardrails for evolving technological change.

Research Scan on AI in Property & Casualty Insurance: *Final Report*

Registered Insurance Brokers of Ontario (RIBO) | Behavioural Insights Team

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THE
BEHAVIOURAL
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TEAM

Glossary

- **Generative AI (Gen AI):** Artificial intelligence (AI) that can create original content — such as text, images, video, audio or software code — in response to a user's prompt or request.

- **Internet of Things (IOT):** Network of interconnected devices that collect and exchange data over the internet. In insurance, IoT devices such as smart sensors and telematics can provide real-time data on factors like driving behaviour, home security, and health metrics, enabling more accurate risk assessment and personalized insurance offerings.

- **Machine learning / Deep learning:** Machine Learning (ML) is a subset of artificial intelligence where algorithms improve their performance through experience and data. Deep Learning (DL) is a more advanced form of ML that uses neural networks with many layers to model complex patterns. In insurance, ML and DL can enhance predictive modeling, fraud detection, and risk assessment by analyzing large datasets to identify patterns and make informed decisions.

- **Natural language processing (NLP):** Branch of artificial intelligence that enables machines to understand, interpret, and generate human language. In insurance, NLP can be used to analyze customer communications, automate responses, and extract insights from data like emails and claims reports.

- **Predictive analytics:** Statistical techniques and machine learning algorithms to analyze historical data and make predictions about future events. In insurance, predictive analytics can forecast claim frequencies, customer behavior, and potential risks, helping insurers to make data-driven decisions and improve underwriting accuracy.

- **Robotic process automation (RPA):** Use of software robots or "bots" to automate repetitive, rule-based tasks across various applications and systems. In insurance, RPA can streamline operations such as data entry, claims processing, and policy management, increasing efficiency and reducing human error.

Context and background

- The continually evolving field of **Artificial Intelligence (AI) and related tools, are re-shaping financial services**. The property & casualty insurance market is no exception.

- Insurers, insurance brokers, and other key actors in the property and casualty insurance sector are considering, developing, and adopting AI tools (e.g., P&C insurance companies are exploring AI with a focus on determining its application to accelerate and improve the accuracy of underwriting).

  - **However, there is very little information available on the specific uses of AI - especially among Canadian brokers.**

- These AI tools hold promise for enhancing the sector's efficiency and ability to provide high-quality service. **They are also creating (and exacerbating) important risks for consumers.**

- The Registered Insurance Brokers of Ontario (RIBO) has commissioned BIT to **conduct research into the implications of AI for its mandate and for the sector more broadly**.

- RIBO's goal is to work ahead on the potential need for new or refined regulatory and non-regulatory approaches to ensure that Ontario consumers continue to be protected.

Core research questions:

1 How are brokers using AI tools today? How might they use them in the near future?

2 What risks do these current and potential uses create for consumers?

3 How can RIBO and other key actors mitigate these risks?

Secondary research questions included use of AI among other market participants and associated implications.

Scope and methodology

- We aimed to understand *key trends* in the current / future use of AI by general insurance brokers and associated *high-level implications* for regulation.

- The research represents an *initial step* in the potential development of new regulatory and non-regulatory measures to protect consumers from potential harms (e.g., bias & discrimination, privacy issues, low transparency & accountability, etc.).

- The research included:
  - Review and analysis of ~25 relevant reports and articles from issued by regulators, academics, and industry participants.
  - Interviews with four Canadian brokers, plus additional interviews conducted by RIBO, to better understand current and potential uses of AI.

- It was conducted over approximately 6 weeks in June - July 2024.

Report structure:

Executive summary
1. Context and background
2. Scope and methodology
3. Summary of findings
4. Key implications, considerations and next steps

Detailed research findings and implications
1. Current use of AI & potential future use of AI
2. Potential benefits and risks of AI
3. Considerations for RIBO and other key actors
4. Recommended next steps

Appendices: Works cited and interview guide

Summary of findings: Current and potential use of AI

Today, brokers seem to predominantly use AI tools for back office functions, but some are starting to explore uses for marketing and customer engagement. They anticipate that most tools will be third-party, not developed in-house.

- We found **very little published research on the use of AI tools among insurance brokers**. The limited number of interviews we conducted suggested a **widespread use of robotic process automation (RPA) for back-office functions** like data management, which can leverage AI. One of our interviewees has started to explore use cases that are more customer-facing, including using **AI for marketing strategy and content, customer engagement** (e.g., chatbots), and even identifying policy renewal options. At least one broker has deployed a custom-built underwriting "back-up" to improve underwriting efficiency and precision.

- When prompted, brokers were **hesitant about further adoption of AI**. They highlighted the centrality of the broker- customer relationship. Interviewees explained that they see a meaningful personal connection as the heart of their value proposition. Any automation of core broker functions through AI could hinder the genuineness of the interaction / network.

- Our research further suggested that the somewhat limited scale of most broker operations generally rules out in-house development of AI tools, suggesting that **adoption will depend on the availability and value offered by third-party tools** (i.e., those developed and sold by broker technology vendors). However, these bring additional risks (see: Privacy, confidentiality, data security on slide 6).

- There is much more research about the current and future use of AI among insurers. The most significant trend is the use of AI in risk modeling (and pricing).

Summary of findings: Benefits and risks of AI (1/2)

Future, expanded use of AI tools among brokers would introduce new risks for consumers. AI tools may offer consumers ill-suited advice on products, use biased data, expose confidential information, and reduce transparency.

- In our limited sample of interviewees brokers appear somewhat tepid about adopting AI tools, but we believe **it's likely that some firms will start to adopt much broader and more customer facing AI tools in the medium-term or sooner.**

- These tools may be able to improve the customer experience and increase the efficiency of the sector. They may also create or deepen significant risks to consumer protection, including:

  - **Biased and inaccurate data → biased and inaccurate decisions:** AI applications may be trained on biased or inaccurate data, which will create biased, or factually incorrect, outputs. In particular, historical inequalities in training data are likely to perpetuate those inequalities unless there is thoughtful supervision (e.g., participation or approval from licensed individuals or compliance experts to ensure consumer protection).

  - **Who's best interest?:** AI applications may be not be trained to prioritize the best interests of consumers. It is difficult to determine how an AI application may balance providing the best advice to consumers with other potential interests of insurers or brokers (e.g., stronger margins or fees for insurers or brokers), unless intermediaries prioritise ethical AI governance that puts customers interests at the forefront of design.

  - **Privacy, confidentiality, data security:** AI tools may gather personal data in ways that are unethical or illegal (e.g., without the informed consent of the consumer). AI platforms may use or transfer this data in ways that are not within the purpose for which it was collected. Cybersecurity risks may be high, unless intermediaries take steps to mitigate security risks by understanding the data being collected and defining the purposes for which this data is being used.

Summary of findings: Benefits and risks of AI (2/2)

Future, expanded use of AI tools among brokers would introduce new risks for consumers. AI tools may offer consumers ill-suited advice on products, use biased data, expose confidential information, and reduce transparency.

○ **Transparency and explainability:** Customers rely on expert brokers and insurers to be able to explain and justify their decisions. The "black box" nature of AI means that these expectations may not be met, unless it is clear to users that AI is being used and what the potential limitation would be. (Note: On the other hand, AI-backed "policy explainer" tools may help clarify policy terms, providing clear explanations on coverage, risks and reducing miscommunication).

○ While outside the core scope of our research, there are more **systemic risks associated with the use of AI modelling by insurers**. It's possible these risks will make it very hard for certain people to obtain insurance due to hyper-personalized risk modelling. There are also risks of systemic bias if widely adopted AI systems use inappropriate or inaccurate information. (Note: While AI modelling can improve the accuracy of underwriting and overall fairness, if brokers are not well equipped or educated to understand how AI is being used to provide more accurate quotes, brokers' ability to explain coverage options and recommendations may be negatively impacted).

Analysis: Applying 'Fair Treatment of Customers' principles to our research (1/2)

'Fair Treatment of Customers' principles apply to AI, given their application to the conduct of human intermediaries. We review these expected ethical behaviour and conduct principles as they relate to the implementation of AI below:

FTC principles	Risks and considerations with respect to AI
Recommending or selling appropriate products for the customer's needs	• AI systems may analyze customer data to recommend tailored products - Biases in data inherent in AI models can influence these recommendations. • It is important to (a) ensure AI is trained on diverse data to avoid biased recommendations that could lead to inappropriate product suggestions and (b) regularly audit AI algorithms to confirm that recommendations remain aligned with customers' evolving needs.
Marketing and selling products in a way that puts customers' interests ahead of private interests	• AI can tailor marketing messages to individual customers, promoting tailored products. • Ethical guidelines on marketing can help prioritize customer benefit over profits.
Giving customers sufficient information and not misleading them through marketing	• Similar to the above, customer-facing AI tools that are trained to achieve business objectives and not follow requirements around informed-decision making will not meet this principle. • Human oversight to review AI-generated materials can help address this risk.

Analysis: Applying 'Fair Treatment of Customers' principles to our research (2/2)

'Fair Treatment of Customers' principles apply to AI, given their application to the conduct of human intermediaries. We review these expected ethical behaviour and conduct principles as they relate to the implementation of AI below:

FTC principles	Examples / considerations with respect to AI
Providing relevant advice for the customer	- AI tools can sometimes provide incorrect information (e.g., "hallucinations") that can erode customer trust. - To mitigate this risk, implement safeguards such as accuracy checks and human oversight, especially for high-stakes advice. Ensure the chatbot can escalate complex or uncertain queries to a human representative.
Protecting the privacy of customer information	- Using AI increases the risk of exposing confidential data to unauthorized third parties, while both open and closed models face threats from information breaches and cybersecurity vulnerabilities. - Third party access should be limited / monitored to ensure adherence to privacy protocols. Contracts should outline data protection requirements.

Key implications and considerations (1/2)

- Our initial research suggests that the primary consideration for RIBO is **how to regulate the use of third-party AI tools to ensure alignment with the RIBO Code of Conduct governing Ontario registered insurance brokers and the *Registered Insurance Brokers Act* (RIB Act).** It is expected that any insurance business outsourced to service providers will not hinder the quality of services or jeopardize brokers' ability to achieve 'Fair Treatment of Customers' principles.

    - RIBO will need to consider **legislative, regulatory, or guidance-based updates** to clarify whether brokers are responsible for any Code of Conduct violations engendered by third-party AI applications and what the associated penalties are (Note: Current expectations are outlined in Section 6.3 Outsourcing within existing CISRO published guidance).

    - In this context, priority areas for RIBO to consider include: Protections for customer data privacy and security, reasonable and appropriate due diligence requirements or appropriate controls for use of AI tools and/or lists of approved uses / technologies or outsourced functions), and liability for licensees when an AI-tool provides incorrect information to customers.

- The key consumer risks associated with AI are generally contemplated in the Code of Conduct, which requires that brokers are competent, honest, act in the client interest, disclose any conflicts, protect privacy and consumer data, propose suitable policies, and maintain client confidentiality.

Key implications and considerations (2/2)

- We recommend that RIBO consider how to **interpret and extend requirements in the RIBO Code of Conduct to AI tools brokers are using**. This will be a significant challenge for brokers and for RIBO.
  - We do not believe it is feasible for brokers to understand the technical training, modelling, and data management practices of vendor technology. However, they should be accountable for using tools with their customers that violate the Code of Conduct.
  - While third-party AI tools might pose challenges due to the evolving nature of technology and the pace at which it evolves, there are vast opportunities for growth. Subsequently, RIBO has the potential to boost its capabilities and tap into new technologies, which will help in effectively identifying and managing these issues down the road.

Recommended next steps

Our research suggests that RIBO should:

- In the short-term,

    - Undertake **more detailed research to ascertain the current and potential use of AI among a diverse group of brokers (e.g., different regions, client profiles, company sizes, etc.)**: We recommend a regular survey and in-depth interviews to gather data on how brokers currently use AI, perceptions of AI's potential, and the challenges they face in integrating AI into their operations. We also suggest a scan of technology vendors that are currently designing / selling AI-backed tools to brokers (e.g. AI tools for data analytics, client engagement, marketing, etc.).

    - Engage in a **sector-wide regulatory collaboration** with other provincial broker regulators, insurer regulators, and broader financial and consumer protection officers including technology regulators. (Note: RIBO may also consider reviewing regulators' actions to address AI risks in other sectors, such as the College of Physicians and Surgeons of Ontario and the Law Society of Ontario.)

- In the medium term,

    - Identify or develop **training for brokers, as well as governance policies, on how to responsibly use AI tools**.

    - **Iteratively develop and consult on proposals for updated legislation, regulation, and/or guidance** to proactively address the risks to consumer protection described in this report and subsequent research.

Detailed research findings

Current use of AI

Key insights:

- *Current AI use among brokers is largely focused on process automation and marketing, with the goal of simplifying routine tasks and processes.*

- *Brokers have noted various barriers to AI adoption, including high upfront costs, challenges upgrading outdated legacy data systems, and limited technological knowledge and capability.*

Brokers   **Insurers**

- There is little publicly available research about brokers' use of AI tools in Canada and abroad. Interviews with brokers suggested that current AI use is largely centered around:

  - **Process automation :** Brokers are using Robotic Process Automation (RPA) and Natural Language Processing (NLP) to simplify routine tasks.

    - **Quandri** and **Trufla** are third-party software tools used by some brokers to automate administrative tasks such as renewals and documentation. **QuickFacts** is a tool that applies NLP to reduce the time and manual labour required by brokers to scan insurance company manuals.
    - RPA is used for data management tasks such as managing downloads and maintaining suspense logs. Some brokers are also exploring how AI can enable "data leaking" or creating centralized repositories to store, process, and secure large amounts of data.

  - **Marketing :** Brokers are also using generative AI such as ChatGPT, Copilot, and Grammarly to draft emails and other marketing collateral. However, these appear to be largely "supervised"; humans are reviewing and editing outputs before they are published.

- Technology firms like CGI have developed AI tools (e.g., Elements360 ARC-IBA) to help brokers **optimize risk management processes** and improve **operational efficiency** through the use of AI.

- Barriers to AI adoption include: (a) **High upfront costs**, especially among smaller scale operations, (b) **Dated technology systems** that would require significant time and money to overhaul, and (c) **Limited technical knowledge and capabilities** related to the inner workings of AI, & how to deploy it.

Potential future use of AI

Key insights:

- ***While some reports note that AI applications (e.g., chatbots, algorithms) could significantly reduce the need for human brokers, brokers generally do not agree. They believe that AI cannot replace the relationship and human engagement they provide and see AI as a tool for enhancing and supporting, rather than replacing, customer interactions.***

- ***Future use of AI by brokers will largely be driven via third-party platforms & technology vendors, not in-house AI development.***

Brokers   Insurers

- Research on the likely or potential future uses of AI for brokers is also limited.

- **Some reports claim that AI has the potential to significantly reduce the need for brokers in the insurance market.** They note that AI-enabled chatbots can replicate the customer service that brokers provide and that algorithms can filter through policies and make customized recommendations based on customers' needs and risk profiles [link].

- However, despite forecasts of "AI brokers" taking over the insurance landscape, our interviews suggested that **brokers are confident that the human, relationship-driven service they provide to customers is at the heart of the broker value proposition**. They expressed skepticism that AI "brokers" would be successful and are not taking steps toward that type of business model.

- **Brokers foresee AI enabling more of the process automation and marketing tasks that it is already being used for.** AI will thus perform the role of "smart personal assistants", supporting a larger client base and making customer interactions shorter and more meaningful [link].

- **Third-party tools that use AI will largely drive future AI use for brokers.** These have been developed and sold by broker technology vendors. Some examples include Quandri and Trufla. The availability and value delivered by new third-party platforms will drive future adoption. Interviews with brokers indicate that the smaller scale of their operations largely rules out any in-house development of AI.

Current use of AI

Key insights:

- **Insurers are leveraging AI/ML to enhance existing predictive models for underwriting, risk assessment, fraud detection, and claims management.**

- **AI is being used by some insurers to automate claims processing through chatbots and image recognition, and to provide 24/7 customer service for common queries.**

- **Barriers to AI adoption include organizational silos and data regulations.**

Brokers   **Insurers**

- Insurers are heavy users of predictive analytics for underwriting, risk assessment / management, fraud detection, and claims management. New analytical approaches offered by AI / ML are significantly enhancing these capabilities [link]. Insurers are primarily using AI for:
  - **Underwriting:** Advanced algorithms are complementing traditional analytics to improve insurers' understanding of customers' risk profiles. AI could potentially go a step further and predict future risk with greater precision using the large amounts of customer data that is now available. However, it is unclear whether these practices currently exist [link].
  - **Claims processing:** Some insurance providers are experimenting with automating claims processing. Chatbots & voice assistants are being used to gather initial claims information, and image recognition technologies are supporting the evaluation of the claim [link].
  - **Customer service:** Similar to brokers, some insurers are using AI-linked chatbots to provide 24/7 customer service on common queries related to billing, transactions, etc. [link]

- In addition, innovation hubs such as the Intact Lab are researching and experimenting with AI / ML to continue enhancing aspects of the insurance process.

- Barriers to AI adoption among insurers include: (a) **Compartmentalized organizational structures** and a lack of strategic integration across departments, leading to siloed AI projects, and (b) **Existing data regulations** about how data is collected, processed, stored, and used.

Note: While AI use among insurers is not the focus of our research, we have included the research to better understand implications for brokers.

Potential future use of AI

Key insights:

- ***AI will enable insurers to use the Internet of Things ("IoT") and advanced data sources, enabling proactive risk monitoring and mitigation, enhancing customer service, and operational efficiency.***

- ***AI may impact key functions of insurers, enabling faster and more tailored insurance policies, more detailed risk profiling, and the creation of usage-based insurance based on individuals' behaviours.***

- ***Insurers may transition from a "detect & repair" to a "predict & prevent" model, moving away from claims to mitigation.***

Brokers　**Insurers**

AI has the potential to disrupt service delivery & distribution, underwriting, & claims processes:

- **Service delivery and distribution:**
  - AI may be used to create detailed risk profiles instantaneously for new clients, reducing time required to purchase insurance.
  - Usage-based products will adapt continuously to individual behaviours and be tailored for micro-coverage elements (e.g., phone battery insurance, different coverage for a washer / dryer) based on user needs. Insurance may transition from an annual renewal model to a continuous cycle as product offerings update based on real-time behavioural patterns [link]. (Note: This will have significant implications on disclosure requirements).

- **Underwriting:**
  - Automated processes supported by ML/DL models will leverage extensive internal and external data to provide instant, tailored quotes and product bundles based on a user's risk profile and coverage needs. This will also enable ex ante decisions on eligibility [link].

- **Claims:**
  - Advanced algorithms will handle initial claims routing, increasing efficiency, and accuracy with the ability to process IoT, image, voice, and other data sources [link].
  - AI may drive a transition from "detect and repair" to "predict and prevent" as insurers move beyond claims coverage to risk mitigation, using data to predict actual occurrences [link].

Note: While AI use among insurers is not the focus of our research, we have included the research to better understand implications for brokers.

Potential benefits of AI

Key insights:

AI can benefit brokers & insurers:

- *AI-driven insights help expand business opportunities, increase efficiency and profitability, increase productivity, and enhance fraud prevention.*

- *This could have positive effects for customers who could receive more accuracy in pricing, more tailored products, expansion of coverage (for some), as well as a reduction in risks.*

- *However, AI's benefits come with risks - see next slide for more details.*

Brokers   **Insurers**

- Benefits of AI for brokers and insurers include:
  - **Expansion of business opportunities:** AI-driven insights can help identify new customer segments & types of risk, expanding the scope of business opportunity through new products / clients.
  - **Greater efficiency and profitability:** Personalized pricing policies can help optimize insurance pricing and thereby profitability for insurers and brokers.
  - **Increased productivity, leading to potential cost-saving and improved customer engagement:** Insurers can automate processes (e.g., customer service, claims processes) which previously required human effort. Brokers can streamline operational tasks (e.g., documentation, marketing, record-keeping) resulting in cost-savings [link].
  - **Fraud prevention:** AI's ability to read patterns can help detect fraudulent claims & reduce the number of legitimate claims accidentally classified as fraud. [link].
- This could have positive benefits for customers. For example,
  - More granular evaluation of risk can lead to accuracy in pricing and tailoring products.
  - Expansion of coverage for some customers (e.g., SMEs), given AI's ability to predict risk profiles without requiring historical records [link].
  - Reduction of risks given real-time monitoring and prevention from AI tools [link].
- *Note: AI's benefits also come with corresponding risks (discussed in subsequent slides).*

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Potential risks of AI: Individual level

Key insights:

AI poses serious customers risks:

- *AI can replicate biases that undermine fairness in insurance.*

- *AI may be trained on data that reflects historical biases. Insights derived from them can exclude underrepresented customer segments.*

- *AI models may be inaccurate in estimating risk due to incorrect classifications.*

- *These factors can adversely affect who gets insured and how much it costs.*

Brokers   **Insurers**

- **AI can replicate biases that undermine Fair Treatment of Customers principles (Risk rating: High)*:**

  - AI may be trained on data sets that reflect historical inequalities and biases (such as race and gender), leading to exclusionary outcomes. While these factors may correlate with risk, they may not be causing it.

  - AI may be trained on data sets that include variables that are not permitted by law (e.g., credit score). Even where illegal or sensitive data is not directly collected by AI platforms, it can use proxy measures (e.g., based on geography or other characteristics of individuals, social media data, etc.) that recreate the same biases [link].

  - AI models may be inaccurate and low performing in estimating risk. For example, AI might incorrectly classify some professions as higher risk for car accidents, increasing premiums or even excluding them entirely. This can unfairly increase premiums for certain customers. [link].

  - Since AI tools are complex and expensive to develop, only a handful of providers can exist in the market. Insurance companies may therefore rely on the same algorithms, fostering a "monoculture" [link]. This can skew the entire insurance market towards the same set of worthy customer segments (e.g., certain demographics, geographic areas, etc.).

* The BC Insurance Council's "State of InsurTech" report assigns a risk rating to consumer risks based on severity and likelihood. We have adopted it for our report.

Potential risks of AI: Individual level

Key insights:

- **AI's "black box" nature can obscure decision-making processes, leading to unclear reasons for premium charges or insurance denials. This can undermine customers' understanding of insurance products and decisions.**

- **AI tools might prioritize interests of insurers vs. customers, exacerbated by the complexity and low explainability of algorithms.**

- **The use of AI exposes customer data to third parties, compromising privacy and security.**

Brokers   **Insurers**

- **Reduced transparency and explainability in decision-making processes (Risk rating: High)*:**
  - AI models are often described as "black boxes" because the process by which they reach decisions is unclear [link]. Brokers may not be able to explain decisions to customers (e.g., why they are being charged certain premiums or being denied certain insurance products).

- **Principal-agent risks (Risk rating: Moderate)*:**
  - AI applications developed and used by insurers to advise or provide other support to brokers might prioritize their best interests rather than their customers. For example, in providing coverage recommendations an AI tool might prioritize expected profit over the consumer's best interests. This potential risk is exacerbated by the high complexity and low explainability of AI tools [link].

- **Compromised privacy and security of customer data (Risk rating: Moderate)*:**
  - Both insurers and brokers have access to vast amounts of customers' personal data and are responsible for ensuring its ethical use [link].
  - Third-party platforms that brokers use can further compromise privacy and security of sensitive data, particularly when there is little clarity on the extent of its use or ownership. These platforms are not regulated the same way brokers are, further increasing risk. It is unclear how third-parties use data provided by brokers, and if outputs can be relied on.

* The BC Insurance Council's "State of InsurTech" report assigns a risk rating to consumer risks based on severity and likelihood. We have adopted it for our report.

Potential risks of AI: System level

Key insights:

- ***Personalized premiums based on individual risk profiles can undermine the principle of risk-pooling, leading to adverse selection and making insurance unaffordable or unavailable for higher-risk customers.***

- ***Larger insurers with more resources can better afford AI tools, putting smaller firms at a disadvantage and weakening market competition.***

- ***The broad reach and rapid scalability of AI means that any potential harms could affect a larger audience quickly.***

Brokers   **Insurers**

- **Endangering the principle of risk-pooling:**
  - Insurance works on the principle of risk-pooling where individual risks of several customers are aggregated such that the losses of a few can be covered by the premiums paid by many.
  - AI and the advent of telematics enables personalization of insurance plans and premiums, i.e., customers pay premiums based on their individual risk profiles.
  - This reduces the need for risk-pooling and can lead to adverse selection where insurance becomes too expensive for high-risk customers as low-risk individuals leave the pool [A Mitchell, expert interview].
- **Reduced market competition:**
  - Insurers with larger budgets and greater technological capabilities are at greater advantage than smaller firms in affording or developing AI tools, weakening the competitive landscape.
- **Scaling of risk:**
  - Due to the scalability of AI, any harm resulting from it can lead to system-wide destabilization [link].
  - Wide-scale adoption of flawed and biased models can result in the mispricing of risks at-scale, threatening sector fundamentals.

Regulatory & non-regulatory considerations for RIBO

- The Registered Insurance Brokers Act, By Laws, Regulations, Guidelines, and other applicable legislation and guidelines do not appear to limit brokers from using AI, nor do the brokers we interviewed report any regulatory barriers to adoption.

- The novel risks posed to customers by AI are largely captured within the broader regulatory framework that brokers operate within. For example, risks related to data privacy / security, discrimination and bias, and the competence / suitability of broker advice are all key features of the existing Code of Conduct and the RIB Act.

- While we have come across research on the responsible development and use of AI (e.g., how models should be trained, deployed, and supervised), we do not anticipate significant in-house development of AI tools (instead we anticipate use of third-party tools). **As a result, there is a need to clarify and address how these Code of Conduct requirements relate to broker use of AI tools, especially third-party tools.**

- RIBO will need to consider legislative, regulatory, or guidance-based updates (or creating new by-laws) to clarify whether brokers are responsible for any Code of Conduct violations engendered by third-party AI applications and what the associated penalties are. In this context, priority areas for RIBO to consider include:

  - Protections for customer data privacy and security (e.g., cyber security tools and insurance coverage for the brokerage covering third party risks).

  - Reasonable and appropriate due diligence requirements for use of AI tools and/or lists of approved uses / technologies

  - Liability when an AI-tool provides incorrect information to customers

Regulatory actions in other jurisdictions:

- **Canada:** Regulatory bodies are primarily using existing rules for enforcement action against AI. Proposals such as the Digital Charter Implementation Act, 2022, are designed to be flexible and adaptive regulatory frameworks to accommodate new AI use cases [link].

- **USA:** In 2020, the National Association of Insurance Commissioners (NAIC) introduced AI Principles, encouraging the ethical & responsible adoption of AI in the insurance industry. In 2023, they released a Model Bulletin on the "Use of Algorithms, Predictive Models & AI Systems by Insurers" to address the increasing integration of AI in insurance, e.g., underwriting, claims processing, risk assessment and customer interactions. [link].

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Regulatory & non-regulatory considerations for RIBO

- ○ AI tools trained on biased datasets and/or that use inappropriate data points (e.g., credit scores)
- ○ The "goals" of AI tools providing pricing or product recommendations to ensure that customer best interests are prioritized.
- There are also areas of potential AI regulation that do not appear to be already contemplated in the existing regulatory framework. RIBO should consider:
  - ○ Disclosure requirements for AI involvement (e.g., communicating to customers how AI is being used)
  - ○ Affordances for customers to request clarification or explanations of decisions that involved AI
- **The investigation and enforcement of regulatory violations related to use of third-party tools will be challenging.** Like other regulators, RIBO does not have and may be unable to feasibly engage experts in AI with the competencies to investigate AI models, their decisions, and their training data. Further, it does not appear that RIBO has the statutory authority to investigate third-parties, so if the non-compliant use of AI is not within the brokers' operations (e.g., it is in the training data), there is no authority to investigate.
- RIBO should consider **educational resources to support brokers in appropriate use of AI**, including developing or identifying training courses on the responsible use of AI and sample internal AI policies.

⚖️ **Regulatory actions in other jurisdictions:**

- **UK:** The UK has a principle-based, non-statutory, cross-sector approach to regulating AI use. The Government's "pro-innovation" approach has been developed based on five core principles which regulators will implement in their domains by applying existing laws / issuing supplementary regulatory guidance. The framework will not be codified into law for now, but the Government anticipates the need for targeted legislative interventions in the future [link].

- **EU:** The AI Act is the first comprehensive regulation on AI by a major regulator anywhere. The Act categorizes risk into three categories and places corresponding regulations on each [link]. This has implications for the use of AI across sectors, including insurance.
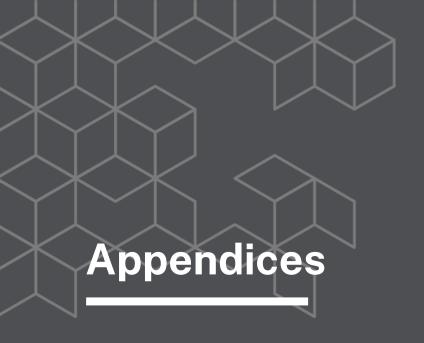
Considerations for other actors

- Effective consumer protection in Canada's insurance market cannot be achieved by RIBO alone, especially in the context of AI adoption. Sectoral, or perhaps even broader national regulation will be required to effectively mitigate the consumer risks described above.

- For example, if insurers are pricing risk based on biased datasets, brokers will not be able to remediate (or even detect) it. If broad-based third-party applications for targeted marketing that are used by brokers need to be investigated for compliance, it may not be within RIBO's (or other insurance regulators') mandate to do so.

- We anticipate that Canadian regulators have already identified the importance of working together to establish shared principles to address consumer risk and to harmonize or align regulatory proposals. Our research certainly supports the value of this approach. We are not able to provide a comprehensive list of key regulators, but they include:

    - Provincial intermediary regulators
    - Provincial insurer regulators
    - Federal financial services and technology regulators.

- Beyond regulators, we think that industry associations like the Insurance Brokers' Association (IBAO) and their counterparts in other provinces may have a valuable role to play. One of our most significant concerns is that it seems inappropriate to expect small brokers to conduct extensive due diligence on third-party technologies they wish to use. We wonder if industry associations could take on this work and, perhaps in concert with regulators, provide resources to help brokers work with responsible vendors that will enable them to comply with existing or potential future regulation.

Recommended next steps

We recommend that RIBO take the following next steps:

- Conduct **further research on the current and potential future use of AI by brokers**. There would be value in a broader survey and further in-depth interviews. Ideally, this would be part of a national, ongoing research program to stay on top of new technologies and adoption trends.

- **Advocate for and engage in consultations with other insurance intermediary regulators** to establish a shared vision for consumer protection in the context of broader AI adoption. This could also include reviewing Governance and Business Culture in terms of Fair Treatment of Customers (FTC) and reviewing whether AI governance policies should be embedded within intermediaries' codes of conduct or ethics and or a recommended best practice for boards of directors reviewing whether their Governance frameworks support FTC.

- Develop a **draft regulatory framework** for the responsible use of AI in the broker industry, with a focus on **clarifying the intersection between Code of Conduct requirements and the potential use of AI applications** that either directly interact with customers or inform broker interaction. Then conduct consultations with brokers and a cross-section of experts to gather their input and feedback on the draft framework, ensuring it is practical and effective for their needs.

- Identify **options for delivering continuing education** on the responsible use of AI.

Appendices

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Appendix B: Interview guide

1. To get started, can you tell us a little bit about your firm.
2. Is your business using or exploring AI at all today? How?
   - If not, are there any barriers you're facing to adopting AI technology?
   - How about your competitors?
3. How about insurers? Any sense of how they are using or planning to use these technologies?
   - More broadly, do you think AI adoption will be more insurer or broker driven?
4. Do you have any thoughts on the implications of this AI adoption for regulation?
   - Do you see any potential consumer harms with the way AI is being used today or being talked about ?
   - Is there anything in the RIBO code of conduct or overall regulatory framework that you see as hindering AI adoption? What about other Laws?
5. How are customers using AI?
6. Do you have any other thoughts you want to share with us about AI or technology adoption in the industry generally?
7. [Time permitting] Any other thoughts about broad trends in the industry?