FAEGRE BAKER DANIELS



PRESENTATION TO ARTIFICIAL INTELLIGENCE (EX) WORKING GROUP

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WHAT IS A.I.?

- "Al is the development of computer systems to perform tasks and make decisions that historically have required human intelligence to perform." Insurance Markets: Benefits and Challenges Presented by Innovative Uses of Technology (GAO Report, June 2019)
- → "Al technologies and systems are considered to comprise software and/or hardware that can learn to solve complex problems, make predictions or undertake tasks that require human-like sensing (such as vision, speech, and touch), perception, cognition, planning, learning, communication, or physical action." U.S. Leadership in Al: A Plan for Federal Engagement in Developing Technical Standards and Related Tools (National Institute of Standards and Technology, August 9, 2019)



WHAT IS A.I.?

- Much of A.I. involves collecting vast amounts of data, then using algorithms to analyze and act on that data.
 - The data can come from many sources, such as social media, wearable trackers, telematics devices, public records, purchasing history and credit information.
 - Algorithms are mathematical models or sets of rules that computers follow to compute an outcome that the user cares about.



WHAT'S THE BIG DEAL?

- One of the things that makes A.I. so powerful is that it enables researchers to discover previously unknown connections...
 - → Between an ocean of data points and
 - → Outcomes that the researchers care about.
- Applications: medical research, hiring decisions, lending, insurance and more



WHY ARE BUSINESSES INVESTING IN A.I.?

- According to Forbes, corporate leaders cite the following business benefits that can come from A.I.:
 - Increased productivity
 - Reduced operating costs
 - Improved speed to market
 - Transformation of the business and operating model
 - Improved bottom-line growth
 - Improved customer engagement



WHY ARE INSURERS INVESTING IN A.I.?

- ▶ For insurers, artificial intelligence can facilitate better:
 - Marketing and customer engagement
 - Underwriting
 - Rating
 - Claims decisions
 - Fraud detection



WHAT'S IN IT FOR INSURANCE CONSUMERS?

- More individualized risk-based pricing and coverages
- Increased convenience and quicker claims handling
- Increased consumer choice
- Real-time monitoring to advise consumers on risk exposure and manage risk



ARE THERE RISKS?

- "[T]the development of AI raises a host of legal, ethical, and societal issues that create real and perceived challenges for developers, policy makers, and users-including the general public." (NITS)
- A.I., data and analytics "have produced benefits such as reduced cost and increased accuracy in some areas of business, but also can pose privacy and civil liberties risks and their use could result in undesirable or expectedly biased outcomes." (GAO)
- Frequently cited concerns:
 - Fairness
 - Bias/discrimination
 - Transparency/explainability



WHAT CAN GO WRONG?

- Data issues
 - Incomplete
 - Inaccurate
 - Outdated
 - Embedded bias
- Algorithm challenges
 - Unreliable accuracy
 - Too complex
 - Reliance on unlawful factors (i.e., race, gender, religion)
- Widespread impact



SOME EXAMPLES

- Facebook's sale of targeted advertising



POLICY IMPLICATIONS

 Strong consensus: A.I. offers extraordinary benefits, but reasonable and measured guardrails are needed

"[M]any companies want clear guidance on how they should, or should not, operate with Al. Even in industries where robust regulations are in place for general business practices, guidance on Al is not clear.

In sectors like financial services and healthcare, for instance, regulations already dictate how an action should be performed by a human operator (avoiding discriminatory lending or protecting patients' data privacy, for instance), while other regulations prescribe how some technologies should operate. But the two don't always overlap and the regulatory blind spots can be gaping."

Forbes Insights (March 27, 2019)



IS THERE A ROLE FOR STATE INSURANCE REGULATORS?

- > Yes, but time is of the essence
- Responsible companies are eager for reasonable and measured guidance
- Federal government is already engaged
 - NITS plan for federal engagement in developing technical standards and related tools (August 9, 2019)
 - Algorithmic Accountability Act of 2019
- International standard-setters are even further down the road
 - OECD Principles on A.I.
 - IAIS Consultation on Big Data Analytics
 - EU plans



FURTHER READING AND VIEWING

- Weapons of Math Destruction: How Big Data Increases Inequality and Threatens Democracy (Cathy O'Neil 2017)
- Insurance Markets: Benefits and Challenges Presented by Innovative Uses of Technology (GAO Report, June 2019)



OECD PRINCIPLES ON ARTIFICIAL INTELLIGENCE

- Organisation for Economic Co-operation and Development
- Adopted by the U.S. and 41 other countries
- General application (not insurance-specific)



POTENTIAL RELEVANCE FOR INSURANCE SECTOR

- Inclusive growth, sustainable development and well-being
 - Advancing inclusion of underrepresented populations
 - Reducing economic, social, gender and other inequalities
- Human-centered values and fairness
 - Respect the rule of law, human rights and democratic values throughout the A.I. system lifecycle
 - Privacy and data protection
 - Non-discrimination and equality
 - Fairness
 - Mechanisms and safeguards, such as human determination



POTENTIAL RELEVANCE FOR INSURANCE SECTOR

- Transparency and explainability
 - Provide meaningful information to stakeholders so that they know when they are interacting with A.I.
 - Stakeholders affected by an A.I. system should be able to understand the outcome
 - Stakeholders adversely affected by an A.I. system should be provided information so that they can challenge the outcome and the logic that served as the basis for the decision
- Robustness, security and safety
 - A.I. systems should be robust, secure and safe throughout their entire lifecycle
 - Should ensure traceability to enable analysis of outcomes
 - Systematic risk management approach to each phase of the A.I. system lifecycle on a continuous basis



POTENTIAL RELEVANCE FOR INSURANCE SECTOR

Accountability

 All organizations that deploy or operate an A.I. system should be accountable for the proper functioning of the system and for the respect of the above principles





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QUESTIONS?

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