In-House Counsel

AI in financial services: Need for safeguards and risk management

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(May 11, 2023, 1:37 PM EDT) -- In order to promote discussion on the responsible use of artificial intelligence in the Canadian financial services industry and to advance the conversation on best practices for AI risk management, the Office of the Superintendent of Financial Institutions (OSFI) and the Global Risk Institute (GRI) created the Financial Industry Forum on Artificial Intelligence (FIFAI), bringing together financial services experts from industry, government and academia.

On April 17, 2023, based on the discussions of the FIFAI, OSFI and GRI published a joint report on the ethical, legal and financial implications of AI on the Canadian financial services industry (OSFI-GRI Report).

The EDGE principles

The OSFI-GRI Report is organized into four areas identified by FIFAI as having the greatest importance in connection with AI models: Explainability, Data, Governance and Ethics — the “EDGE“ principles.

1. Explainability allows customers of financial institutions to understand the reasons for an AI model’s decisions.
2. Data leveraged by AI allows financial institutions to provide products and services that are targeted and tailored to their customers. It also enhances fraud detection, risk analysis and management, operational efficiency and decision-making.
3. Governance ensures that financial institutions have the right culture, tools and frameworks to support the realization of AI’s potential.
4. Ethics encourages financial institutions to consider the broader societal implications of their AI systems.

Explainability

Explainability should be considered at the onset of an AI model’s selection and design. The appropriate level of explainability will be shaped by several elements, including what needs to be explained, the complexity of the AI model and who requires the explanation. For example, an explanation that would be adequate for a customer may be insufficient for a regulator or a data scientist. Explainability will also depend on the materiality of the particular use case. For instance, higher levels of explainability will be needed for AI models that make credit decisions compared to AI models used in chatbots.

The OSFI-GRI Report further highlights the importance of the disclosure of sufficient and relevant information relating to AI models to financial institution customers. Of course, financial institutions will need to ensure that such AI-related disclosure does not undermine their cybersecurity or affect their competitive advantage.
Data

The integration of AI into the operations of financial institutions has presented challenges for managing and utilizing data. AI models have the ability to process enormous amounts of data, which makes the task of maintaining high data quality challenging. Financial institutions must also ensure that there are adequate measures in place to safeguard sensitive personal and financial information. The OSFI-GRI Report emphasizes that these challenges can be addressed through sound data governance.

Governance

Model risk management came into focus in 2017 with the introduction of OSFI’s Guideline-E23: Enterprise-Wide Model Risk Management for Deposit-Taking Institutions. The growing use of AI models, which pose many of the same risks as traditional models, has driven financial institutions to consider how to factor AI into their governance frameworks. The OSFI-GRI Report identifies the following elements as vital for the good governance of AI in financial institutions:

- a holistic approach that encompasses the entire organization;
- roles and responsibilities are clearly articulated;
- a well-defined risk appetite; and
- the flexibility to pivot, where required, as new systems and risks emerge.

Ethics

Addressing AI ethics is difficult because ethical standards are highly subjective and evolve over time. In addition, the societal expectation on financial institutions to uphold high ethical standards is only increasing. Given these challenges, the OSFI-GRI Report stresses the importance for financial institutions to maintain transparency through disclosure on how their AI models meet high ethical standards.

Conclusion

While rapid developments in AI have created opportunities for Canadian financial institutions, they have also underscored the need to mitigate the risks associated with AI technology. The OSFI-GRI Report highlights the need to set robust regulations for AI while ensuring that financial institutions continue to evolve and remain competitive. The importance of collaboration and a desire for ongoing dialogue about the safe integration and use of AI in the Canadian financial services sector is paramount, as AI is constantly evolving.

Regulatory guidance on AI is expected soon, as OSFI is set to release an enhanced draft of its E-23 Guideline for public consultation later in 2023. The enhanced Guideline is expected to address the emerging risks of models that use advanced analytics (including AI and machine learning) and will apply equally to federally regulated deposit taking institutions, federally regulated insurance companies and federally regulated pension plans.

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