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CSA Secretariat
Canadian Securities Administrators
c/o Autorité des marchés financiers
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Re: CSA Consultation 11-348 – Applicability of Canadian Securities Laws and the Use of Artificial Intelligence Systems in Capital Markets

Dear Members of the CSA,

Thank you for the opportunity to provide comments on this important consultation concerning the applicability of Canadian securities laws to Artificial Intelligence (AI) systems in capital markets. AI presents a double-edged sword, offering unprecedented opportunities for efficiency, decision-making, and investor access, but also introducing significant risks, including systemic vulnerabilities, transparency concerns, and bias.

Drawing from reports by the European Securities and Markets Authority (ESMA), the Financial Industry Regulatory Authority (FINRA), the Organisation for Economic Co-operation and Development (OECD), the International Monetary Fund (IMF), and the Ontario Securities Commission (OSC), this letter provides recommendations that are designed to promote a balanced and forward-looking regulatory framework that fosters responsible innovation while safeguarding investors and maintaining market integrity.

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1. The Need for New or Enhanced Rules

The rapid deployment of AI across trading, portfolio management, compliance, and retail applications has outpaced traditional regulatory frameworks. ESMA's analysis highlights how AI is transforming financial processes but warns of risks from opaque systems and uneven adoption. [1] The OSC underscores the potential for malicious uses and the challenge of overseeing AI in high-risk situations. [2] The OECD stresses the need for harmonized regulatory approaches across jurisdictions to avoid fragmentation. [3]

Recommendations:

- **Enhanced Governance Standards:** Firms deploying AI tools for suitability determinations, client onboarding, and trading algorithms should adhere to governance frameworks requiring comprehensive documentation of development, testing, and monitoring processes. For example, firms could maintain records of model validation procedures to demonstrate alignment with investor protection principles.
- **Mandatory Disclosures:** Firms must disclose AI usage in simplified, accessible language within client-facing documents such as prospectuses or onboarding materials. For example, a prospectus might include a statement: *"This fund utilizes AI-based tools to support investment decisions. While AI enhances efficiency, it has limitations, including potential biases in decision-making."*
- **Risk-Based Regulation:** Adopt a tiered regulatory approach, such as that proposed by the EU AI Act, applying stricter oversight to high-risk applications (e.g., trading algorithms influencing market stability) while streamlining requirements for lower-risk tools.

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2. Lifecycle Risk Management of AI Systems

AI systems evolve dynamically, introducing risks of unforeseen behaviors such as model drift. FINRA emphasizes the importance of lifecycle controls, while the OSC highlights the necessity of ensuring systems remain aligned with intended objectives. [4] [5] ESMA cautions that inadequate lifecycle management could lead to systemic risks. [6]

Recommendations:

- **Ongoing Validation:** Firms should perform scenario testing to assess AI systems' performance under stress conditions. For instance, a trading algorithm could be tested for its response to sudden market downturns, ensuring it does not exacerbate volatility.
- **Dedicated Oversight Roles:** Assign lifecycle management responsibilities to specific teams or individuals within firms. Oversight personnel could be tasked with reviewing monthly performance reports for key deviations.
- **Dynamic Guidance:** Regulators should issue iterative, scenario-based guidance to reflect evolving AI applications, informed by the OECD's best practices for adaptive regulation. [7]

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3. Data Governance and Quality

The reliability of AI systems hinges on the quality and security of the data they use. ESMA and the IMF underscore the risks posed by biased or incomplete datasets, which can lead to discriminatory outcomes or flawed decisions. [8] [9]

Recommendations:

- **Pre-Implementation Data Audits:** Require firms to conduct rigorous audits to ensure data accuracy and fairness before integrating it into AI systems. For example, a firm deploying an AI-based credit scoring model could verify that its datasets are representative of the diverse demographics it serves.
- **Privacy Protections:** Strengthen safeguards to ensure personal data used by AI systems complies with privacy regulations. This could include encryption protocols for transmitting and storing data.
- **Transparency in Data Sourcing:** Mandate disclosures of data sources, particularly for non-traditional datasets like social media analytics, aligning with OECD recommendations for ethical AI deployment. [10]

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4. Transparency and Explainability

Opaque AI models, particularly those employing deep learning techniques, can undermine trust and accountability. ESMA emphasizes the need for explainability in high-risk applications, and the OSC notes that transparency is essential for investor confidence. [11] [12]

Recommendations:

- **Explainability Benchmarks:** Establish explainability standards requiring that AI tools provide plain language outputs. For example, a robo-advisor could explain its recommendations with statements such as: *"This portfolio is tailored to your preferences, prioritizing ESG-compliant equities based on market trends and company disclosures."*
- **Periodic Reporting:** Firms should submit periodic reports to regulators detailing AI decision-making processes and validation methods.
- **Simplified Disclosures:** Retail-facing AI tools should include summaries explaining how decisions are made and the rationale behind recommendations in client-friendly language.

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5. Addressing Systemic Risks

Systemic risks can arise from multiple firms relying on similar AI tools or datasets, potentially leading to correlated outcomes. The IMF and ESMA both highlight the need to diversify tools and ensure resilience against these risks. [13] [14]

Recommendations:

- **Diversification of Tools and Vendors:** Encourage market participants to adopt diverse AI tools and datasets to reduce dependencies.
- **Systemic Stress Testing:** Conduct industry-wide stress tests simulating scenarios such as simultaneous trading by AI systems in volatile markets.
- **Vendor Oversight:** Implement oversight mechanisms for major AI vendors, ensuring their compliance with standards for transparency, security, and reliability.

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6. Cross-Jurisdictional Insights: Learning from International Approaches

Canada's regulatory approach should draw lessons from global leaders in AI oversight. The EU AI Act's risk-based framework offers a scalable model for regulation, while the OECD highlights the importance of harmonization to ensure competitiveness. [15] The OSC's focus on sandbox environments demonstrates the potential of collaborative innovation. [16]

Recommendations:

- **Regulatory Sandboxes:** Establish sandboxes to allow firms to pilot-test AI technologies under regulatory supervision, fostering innovation while identifying compliance challenges.
- **Phased Implementation:** Introduce phased regulations, revisiting and refining them as AI technologies evolve, following OECD recommendations.
- **Global Alignment:** Engage with international regulators to harmonize standards, ensuring Canadian markets remain competitive and aligned with global best practices.

Conclusion

The integration of AI into Canadian capital markets offers transformative potential but demands a proactive regulatory framework. By incorporating insights from ESMA, FINRA, the OECD, the IMF, and the OSC, this letter outlines a framework that is intended to foster responsible innovation while safeguarding investors. I urge the CSA to prioritize transparency, adaptability, and global alignment in its efforts to regulate AI.

Thank you for considering these recommendations. I remain available to provide further input or clarification as needed.

Sincerely,

[redacted]
Harvey S. Naglie

Footnotes

1. ESMA, *Artificial Intelligence in EU Securities Markets*, 2023.
2. OSC, *Artificial Intelligence in Capital Markets*, 2023.
3. OECD, *Regulatory Approaches to Artificial Intelligence in Finance*, 2024.
4. FINRA, *Artificial Intelligence in the Securities Industry*, 2020.
5. OSC, op. cit.
6. ESMA, op. cit.
7. OECD, op. cit.
8. IMF, *Advances in Artificial Intelligence: Implications for Capital Markets*, 2024.
9. ESMA, op. cit.
10. OECD, op. cit.
11. ESMA, op. cit.
12. OSC, op. cit.
13. IMF, op. cit.
14. ESMA, op. cit.
15. OECD, op. cit.
16. OSC, op. cit.