

QoN 010-09 – ASIC's use of AI and machine learning

Given the capability of today's technology, how does ASIC 'practice what it preaches' by embracing the functionality of AI and machine learning to make them more efficient as a regulator? Please provide examples of this.

Answer:

ASIC has been exploring the use of artificial intelligence and machine learning for its internal processes for a few years now. This is with an understanding that the use of these scientific approaches can assist ASIC with efficiencies and effectiveness in identifying risk and misconduct. Recently some of the challenges around AI exploration and solution implementation at ASIC have been overcome with the introduction of the data lake platform in September 2020. The new platform provides access to advanced analytic tools for ASIC's Data Scientist and the scalable storage and compute needed to execute AI algorithms.

A range of trials, prototype and proof of concepts have been previously explored:

Natural language processing

- Using machine learning models to assess the risk of Statement of Advice documents from Financial Advisers allowing advisers with the riskiest documents to be identified
- Detecting misleading or noncompliant material in financial promotional material allowing this material to be identified proactively, quickly and without the need of significant manual effort
- Identifying key information in prospectus documents to reduce the effort needed and time taken to triage the documents based on their risk
- Identifying key information in product disclosure documents to proactively identify markers of misconduct
- Identifying types of events in market announcements and key information in annual reports to assist in the regulation of financial audits

Artificial intelligence

- Analysing insurance sales calls using voice analytics technology significantly reducing the time and effort needed to identify misconduct. Showcasing capability also pushes the industry into self-regulation by adopting the technology themselves
- Prototype of an internal chatbot to answer licensing questions to increase the efficiency and consistency of responses to external queries

Other Machine learning models

- Prototype model to identify the risk/severity of reports of misconduct
- Proof of concept machine learning model to predict the likelihood of misconduct in managed fund providers allowing proactive regulation of fund providers.
- Proof of concept machine learning model to predict the likelihood that a listed company will fail in the next 18 months. Extended by Macquarie University to develop the C5 financial vulnerability index. Allows extra scrutiny to be given to companies' fund-raising activities when it looks like they are about to fail.
- Joint work with the ATO to identify straw and shadow directors involved in illegal phoenix activity. Work continued and used by the ATO.

The combination of the newly released data lake and skilled analytic teams will give ASIC the opportunity to implement the projects above as well as similar projects to realise the benefits that the proof of concepts or prototypes have already identified.

Work has already commenced or has been approved on a few projects. The extraction of features from prospectuses is currently being implemented in the data lake and projects around the C5 financial vulnerability index and the extraction of information from insolvency forms are scheduled to commence soon.