Risk Management: AI Innovation

Carl Dalby, Risk Specialist

AI Focused Proofs of Concept

<u>Data source:</u> All risk log information for over 10 years of historic risk management data from all NDA Group members

<u>Technology use:</u> Using current NDA software licences for Microsoft based software (AI algorithms out of the box)

PoC 1:

Risk Exposure Prediction

Use AI to pattern recognise and process risk exposure to predict over the coming 6-12 months.

PoC 2:

Finance risk forecasting

Use AI to shape the probabilistic model to help identify risks to increase better funds management.

PoC 3:

Risk Assistant

- Use AI to deliver a real-time scheduler/meeting analysis for resource optimisation and risk analysis. Potential cost saving across time and effort of resetting meetings to find the right person in the right place at the right time

AI PoCs – Expected Outcomes

PoC 1

Increased risk exposure certainty to allow more efficient mitigation investments

Potential enrichment of current data to increase new risk analysis/interventions

PoC 2

Increased commercial risk picture to allow planned financial impacts to be more timely activated/managed

PoC 3

Resource efficiencies for better expert/skill utilisation

Potential increase in information to become easily searchable for future resource interrogation

Potential use cases across other parts of the NDA/government with commensurate benefits

AI Focused Proofs of Concept

Data source: External data sources via secure data connections

Technology use: Using current NDA software licences for Microsoft based software (AI algorithms out of the box)

PoC 4:

Risk Live

- Use AI to connect GSR information with real-time global events to deliver a "living" risk picture to enable alerts/decision making and action in the moment where necessary

The National Decommissioning Centre
Innovation through Partnership

1 4 9 5
UNIVERSITY OF ABERDEEN

The Economist INTELLIGENCE UNIT

Expected outcomes

- Turning risk identification into a real-time process versus a snapshot in time view
- Connecting secure real-time external data into a valuable map of qualified risk across the estate
- Possible historic risk pattern analysis can indicate risk trend data for the future
- Risk dependency mapping could be automated or at least deliver initial draft views for review, hidden connections could be identified
- Possible natural language processing (NLP) applications to allow increased risk data richness and fast analysis
- Potential for real-time data discrepancies and missing items being identified across the risk management process'
- Potential connection to smart security systems to analyse events and connect in real-time
- Possible connection to horizon scanning in real-time
- Run lessons learning process where historical mitigation plans can be updated and reused
- Possible hand writing recognition efficiencies across historical data

Q&A

NDA

Making a difference