Proactive monitoring with AI in life sciences

Enable continuous, near real-time Office365 email monitoring using artificial intelligence to more effectively detect risks in the workforce

Noncompliant commercial activities and workforce misconduct can cost companies reputational damage and monetary penalties that can reach billions of dollars annually. The situation is complicated by the growing prevalence of digital communication and the evolving regulatory environment in life sciences, which make it difficult to detect compliance issues using only human capabilities.

KPMG helps global life sciences companies leverage the power of big data cloud platforms and artificial intelligence (AI) to conduct more precise, proactive monitoring initiatives. ***Leveraging the Microsoft Azure cloud, KPMG is developing a secure managed web application to enable near real-time monitoring of Office365 data that may shorten risk detection timeframes from days to hours.***

Client challenges

Leaders across life sciences functions (e.g., legal, internal audit, compliance, etc.) are challenged with mitigating multiple risks and exposures, including:

- Increasing speed to market for new drugs and devices, while maintaining compliance
- Avoiding costly reactive investigations and litigation
- Scaling and developing the agility to monitor multiple sources of communication
- Managing global operations, while complying with data privacy laws that vary by geography
- Responding to pricing pressure by reducing spend to align with budgetary constraints

KPMG's solution

KPMG, in an exclusive alliance with Microsoft, is applying our industry experience to develop a secure managed web application that can continuously analyze large volumes of Office365 data in a client's own secure Azure cloud environment. Our proprietary AI module and related machine learning models can generate predictive alerts about risky communications that need attention. This near real-time monitoring can assist clients to avoid costly manual reviews and allow proactive intervention, when needed.

Artificial Intelligence

KPMG's AI module applies deep learning to large text-based datasets like email. Search strategies for detection are enhanced by AI's understanding of language context and organizational vernacular, codenames, and even deceptive words.

Microsoft's Graph Data Connect speeds up data collection.

AI and ML automate detection analysis.

Machine learning (ML) models can more precisely detect issues in the data using natural language processing (NLP), anomaly detection, and social network analysis. ML models are tailored to clients' specific issues and are continuously improved based on user feedback in the web app.

A deeper dive

Solution features

- AI module consumes entire corporate email datasets and builds a company-specific language intelligence to maximize search strategies and recall of relevant data.
- ML models apply NLP, anomaly detection analysis, and relational network analysis to increase precision and minimize false positives once relevant data is flagged.
- Alert system allows for efficient detection using statistical scoring to generate alerts for users based on thresholds.
- KPMG forensic consultants analyze alerts in the web application and collect them into cases for client review and collaboration.

Why KPMG

With extensive industry experience, KPMG helps life sciences companies proactively manage potential risks in an increasingly complex environment. Our insights are derived through advanced analytics and deep compliance knowledge, helping clients to minimize the cost and risk of litigation, investigations and regulatory action in the event of fraud, abuse or other misconduct. Our professionals provide legal and compliance departments, audit and special committees, and others with the near real-time ability to establish facts, evaluate implications, and identify appropriate remedial actions. Our people and advanced processes are complemented by KPMG's Data & Analytics center of excellence, which is an industry leader and was selected as Microsoft *Partner of the Year*.

Life sciences industry benefits

Adapts to regulatory environment

Faster ongoing data analysis at enterprise scale. Flexibility to adapt to ever-changing regulatory issues.

Customized to client's particular circumstances

Issues for monitoring tailored to client's individual situation. More precise and effective detection, eliminating hours of manual review.

Secure control of data

Data remains in client's Azure cloud environment, allowing greater security and internal governance.

Facilitates turning data into action

Customized reports and dashboards reveal patterns and trends, creating more valuable, actionable insights.

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