Legal Data Intelligence

Predictive Risk Modeling

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Predictive risk modeling is the process of connecting business, legal, and compliance data to develop a predictive risk model that analyzes new and existing business offerings. An effective model will incorporate alerts, red flags, and allows legal teams to introduce guardrails to reduce risk.

USE CASE IN PRACTICE

New Product or Offering

Once a predictive model is deployed, point the predictive model to a new product or offering to assess risk, identify areas more likely to lead to a negative compliance/legal outcome, and develop guardrails to lessen the risk of that outcome. Continuously monitor changes over time to identify possible red flags.

MODEL WORKFLOW

Initiate

Define Objectives

Establish clear goals for the predictive risk modeling effort, including identifying regulatory risks, compliance gaps, or legal vulnerabilities

Inventory Data

Catalog available legal, compliance, and business data sources, ensuring data completeness and accuracy

Create Data Taxonomy

Identify data gaps or key metrics that may need to be captured to enable end-to-end analytics (e.g., capturing litigation outcome results like settlement amount or time to disposition)

Categorize Risk

Identify the category of risk at issue (e.g., legal, regulatory, compliance) and the business effort at issue (e.g., new products, customer interactions, new services, sales)

Calibrate Risk Appetite

Define the organization's tolerance levels for different risk types, which supports anchor modeling thresholds and guides prioritization

Align Stakeholders

Collaborate with legal, compliance, and business teams to align on expected outcomes and actions needed based on modeling efforts, including data stewards and business owners of each data category

Select Technology

If needed, evaluate and select predictive analytics tools or platforms capable of handling multi-source data integration

Develop Data Governance and AI Framework

Set up protocols or engage governance committees for AI, data privacy, security, and regulatory compliance to ensure governance procedures are followed

Investigate

Integrate Data

Combine datasets into a unified analytics platform (if needed) to enable cross-functional insights

Identify Risk Patterns

Use machine learning or AI techniques to analyze historical data and identify patterns associated with legal or regulatory risks

Test Scenarios

Simulate potential risk scenarios using predictive models to understand impacts and likelihoods

Test for Model Explainability and Bias

Consider articulating clear expectations and adopt interpretative models and fairness audits, as outcomes may inform dispute handling or internal investigations

Conduct Counterfactual Analysis

This supports how to model what might happen but what could have happened differently. This is a powerful step for legal strategy

Use Visualization Tools

Leverage dashboards and heatmaps to visually represent risk concentrations and emerging trends

Run Entity Extraction

Identify the characteristics and entities associated with the data for risk categorization

Gather Feedback

Engage stakeholders to validate findings and refine and iterate models based on domain expertise and real-world investigation

Implement

Deploy Predictive Models

Roll out models to monitor risks in real time, flagging potential issues before they escalate and identifying guardrails to avoid future issues

Automate Alerts

Set up automated notifications for high-risk events or deviations from standards

Incorporate Data-Driven Decision Making

Integrate predictive insights into decision-making processes, enabling proactive risk mitigation strategies

Validate

Monitor and assess impact of predictive insights to validate the process

Determine Human-in-the-Loop Decision Protocols

Define when model-generated insights must be escalated to human reviewers or legal decision-makers, and which kinds of risks can be auto-flagged vs. require interpretation

Iterate for Continuous Improvement

Use AI and machine learning to refine models over time, incorporating new data and feedback

Onboard Teams

Layer in change management and communications strategies to onboard teams to the predictive framework

Check for Scalability

Ensure the technology infrastructure can scale to accommodate additional data sources or expanded use cases

Implement Post-Event Analysis Framework

After a flagged risk materializes, use a formal process to analyze model performance and any missed indicators to meaningfully close the feedback loop