Integrating AI into integrity monitoring

Artificial intelligence (AI), including generative AI (GenAI) and agentic AI, is transforming the landscape of integrity monitoring by enhancing analytical precision, automating repetitive tasks, and improving decision-making transparency. How can these technologies be strategically applied across the integrity monitoring lifecycle—from risk identification to reporting—to improve the detection of fraud, waste, and abuse (FWA) and drive trust and accountability?

Enhancing FWA risk identification

AI systems can analyze vast volumes of structured and unstructured data at speed to identify potential FWA risks early in a project's lifecycle.

Pattern recognition and anomaly detection: AI models trained on historical monitorship data can identify irregularities in financial transactions, procurement records, and project documentation that deviate from expected norms.

Natural language processing (NLP): GenAI can process narrative project reports, emails, and meeting notes to detect linguistic indicators of potential misconduct or control weaknesses.

Predictive risk modeling: Agentic AI systems can simulate project outcomes under different risk scenarios, identifying where integrity breaches are most likely to occur.

By combining these analytical outputs with established risk frameworks, integrity monitors can prioritize high-risk areas more quickly and accurately.

AI-assisted FWA risk assessments

AI can streamline the risk assessment process by automating data collection, synthesis, and scoring.

Automated data aggregation: AI agents can pull information from disparate sources—financial systems, compliance databases, and field reports—into a unified risk dashboard.

Dynamic risk scoring: Agentic AI can continuously update risk scores as new data becomes available, enabling real-time monitoring rather than periodic reviews.

Scenario generation: GenAI can create hypothetical fraud or abuse scenarios based on known vulnerabilities, helping monitors test the robustness of existing controls and improve policies and procedures.

This approach allows integrity monitors to focus on interpreting AI-generated insights rather than manually compiling data.

Identifying high-risk components, processes, and projects

AI systems can evaluate project data holistically to determine which areas warrant heightened scrutiny.

Network analysis: By mapping relationships between vendors, subcontractors, and project managers, AI can uncover potential collusion or conflicts of interest, which is often difficult to detect using manual methods.

Process mining: Agentic AI can reconstruct actual workflows from digital logs, identifying deviations from approved procedures or gaps in procedures that may signal control breakdowns.

Comparative benchmarking: GenAI can compare project performance metrics against industry norms or similar projects to surface anomalies.

This enables integrity monitors to direct attention and resources toward the most critical risk areas, improving overall monitoring efficiency.

Converting field observations into actionable insights

Field observations often contain valuable qualitative information that can be difficult to systematize.

Automated summarization: GenAI can convert field notes, interviews, and inspection data into structured summaries and action items to drive consistency.

Insight extraction: NLP models can identify recurring themes or emerging risks across multiple field reports.

Knowledge graphs: Agentic AI can link observations to specific risk categories, control deficiencies, or prior incidents, creating a living repository of intelligence.

This approach can help ensure that field-level insights feed directly into ongoing risk assessments and monitoring plans.

AI-driven monitoring plans and reports

AI can assist in developing and maintaining comprehensive monitoring plans and reports that evolve dynamically as new information emerges.

Plan generation: GenAI can draft monitoring plans based on project scope, risk profile, and compliance requirements, driving consistency and completeness.

Progress tracking: Agentic AI can autonomously update monitoring plans as milestones are achieved or new risks are identified.

Automated reporting: AI can generate periodic integrity monitoring reports that summarize findings, risk trends, and recommended actions in clear, auditable formats.

This can help reduce administrative burden and enhance the timeliness of reporting to stakeholders.

AI-assisted invoice review and contract compliance

Invoice review is a critical component of integrity monitoring, and AI can substantially improve its accuracy and speed.

Contract parsing: GenAI can extract key terms, payment provisions, and performance obligations from contracts.

Invoice comparison: Agentic AI can cross-reference invoice line items against contract terms, budgets, and project deliverables to identify discrepancies or overbillings.

Supplemental documentation support: Agentic AI can validate any potential discrepancies with other supplementation documentation, including timesheets, bank transactions, and other payment information.

Anomaly detection: Machine learning models can flag unusual billing patterns or duplicate charges for further review by monitors.

These capabilities allow integrity monitors to focus on investigating substantive issues rather than performing manual reconciliations.

How KPMG can help

AI can not only make integrity monitoring more efficient and effective but also strengthen trust in the integrity of the monitoring process itself. KPMG LLP helps clients integrate AI into integrity monitoring by combining our deep experience in compliance, forensic accounting, and regulatory oversight with tested methodologies and a structured implementation approach. Our approach helps ensure AI tools are used ethically and effectively, giving clients confidence through a process grounded in human oversight, robust model governance, and client assurance.

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