

Process-Mining-enabled audit of Information Systems: New ways and range of actions

The integration of artificial intelligence (AI) with Process Mining techniques represents a significant advancement in the field of Information Systems (IS) audits. By combining the power of AI algorithms with the data-driven approach of Process Mining, auditors can unlock new possibilities for enhancing audit processes and gaining deeper insights into organizational operations.

AI technologies, such as machine learning and natural language processing, can play a crucial role in automating data analysis tasks, identifying patterns, and detecting anomalies within large datasets. This automation not only speeds up the audit process but also improves the accuracy and reliability of audit findings. AI-powered expert systems can continuously monitor processes, flag potential risks in real-time, and provide auditors with actionable insights for decision-making [T6].

Moreover, the application of AI in Process Mining can lead to more sophisticated process discovery and conformance checking. Machine learning algorithms can learn from historical data to predict process behavior, identify deviations from expected patterns, and suggest optimizations for process efficiency. By leveraging AI capabilities, auditors can gain a deeper understanding of complex process interactions and dependencies, enabling them to make more informed audit decisions [T4].

The synergy between AI and Process Mining not only streamlines audit procedures but also enhances the overall effectiveness of IS audits. By harnessing the analytical power of AI to complement the process-centric approach of Process Mining, auditors can uncover hidden insights, mitigate risks, and drive continuous improvement in audit practices. This integration represents a promising avenue for revolutionizing the audit profession and ensuring the relevance and reliability of audit outcomes in the digital age.