Scrut Automation

The impact of AI and ML on **modern GRC solutions**

Contents

Abstract

Governance, risk management, and compliance, or GRC, is a concept that is slowly getting into the limelight. In the wake of high-profile corporate scandals such as Enron and WorldCom in the 1990s and early 2000s, the need for stricter regulations was evident.

The US Congress introduced the Sarbanes-Oxley Act (SOX) in 2002 to regulate the financial reporting of corporations. This can be regarded as the first step in the formulation of the modern GRC concept. Due to the new regulations of SOX, companies began to adopt GRC programs and technologies to manage their compliance and risk management.

Over the years, GRC has become increasingly important to businesses, not just in the US but worldwide, as the companies have come under greater scrutiny from regulators, stakeholders, and the public. Consequently, GRC solutions were introduced to meet the requirements of these companies.

These GRC solutions assist companies in managing risks and compliance more effectively and ensure that they are operated in an ethical manner. Today, GRC software has become more IT-centric with the increasing use of digital data and the introduction of IT compliance regulations.

Enterprise Risk Management
Complaint Management
Issue Management
Internal Audit
Compliance Management
IT Risk Management
Vendor Management
Buisness Community
Policy & Document Management

Groups
Controls
Processes
Employees
Action Items
Documentation
Laws & Regulations
Products & Services

Introduction

There is a wide range of GRC solutions available in the market that ensures compliance with various regulations and standards and management of IT risks. They employ the latest technological advances to help businesses achieve their objectives. With the wide adoption of GRC software, innovation has been welcomed as well. Most GRC management software in the market today employs the latest technological advancements, such as machine learning and artificial intelligence, to help businesses achieve their objectives.

Machine learning refers to the technology that trains a computer system to recognize patterns and relationships in data and to make predictions or decisions based on that knowledge. Typically, ML is based on algorithms and statistical models, which are trained on large data sets to learn to recognize patterns and make predictions.

Artificial intelligence, on the other hand, is a broader field that encompasses ML and other techniques for simulating human intelligence and decision-making. AI uses a vast array of techniques ranging from rule-based systems that use logic and decision trees to make decisions to complex systems that use neural networks and deep learning algorithms to learn from data and make predictions.

Artificial Intelligence

Artificial intelligence (AI) refers to the simulation of human intelligence and decision-making processes in computer systems, including the ability to learn from data, reason and solve problems, understand natural language, and perceive and interact with the environment.

Machine Learning

Machine learning is the use of algorithms and statistical models to enable computer systems to learn from data and make predictions or decisions without being explicitly programmed.
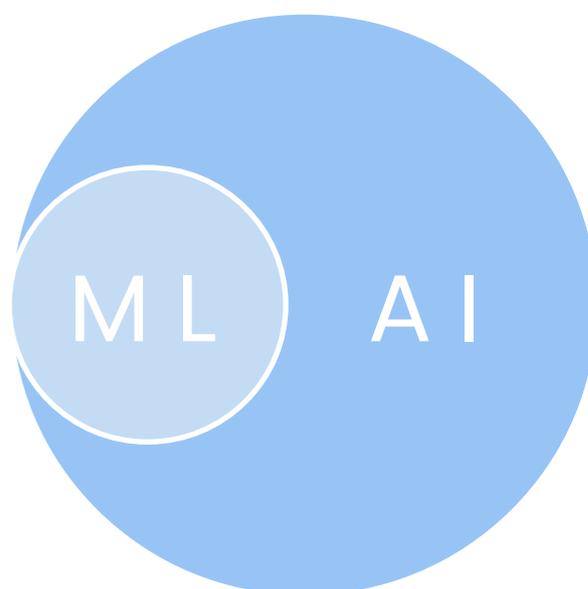
Hence, it can be concluded from research that ML and AI are powerful tools that are transforming many industries, including GRC software, to enable new forms of innovation and creativity.

What is the role of AI and ML in GRC solutions?

GRC solutions are becoming increasingly smarter with the use of technologies such as machine learning and artificial intelligence. Let us look at the role played by ML and AI in modern GRC software at present and in the future.

Fraud detection and prevention

Improving data quality and analysis

Enhancing risk assessment and mitigation

Automating compliance monitoring

Streamlining regulatory reporting
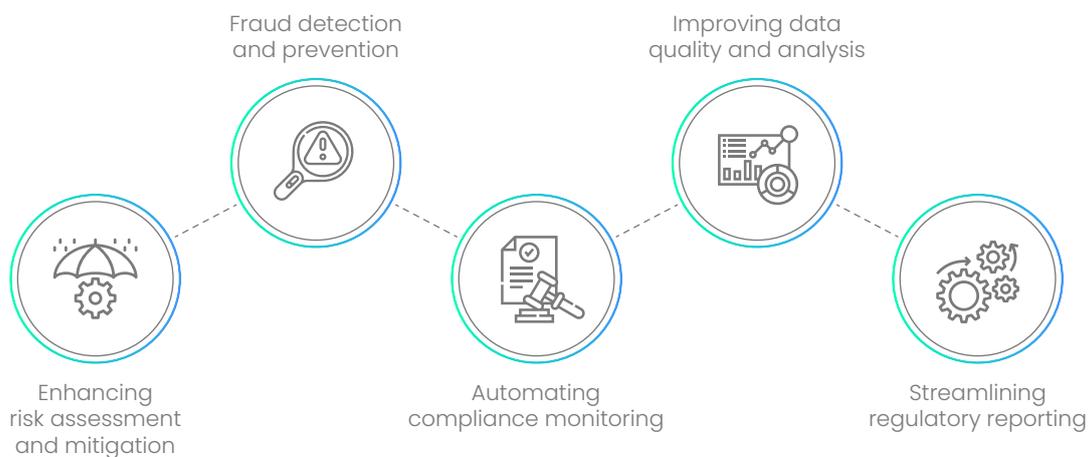
Enhancing risk assessment and mitigation

As human beings have limitations, certain types of data analysis are almost impossible to perform. Machine learning and artificial intelligence, on the other hand, can analyze vast amounts of data to identify patterns and trends. This technology can help GRC professionals identify potential risks that would have been impossible to identify without ML and AI assistance. They can respond to such risks before they become too big.

Fraud detection and prevention

ML and AI can streamline the monitoring process of an organization. Any fraud or negligence can be identified early on to protect them going forward. By following strict compliance procedures, the organization can also reduce the chances of fraud in an organization.

Automating compliance monitoring

Compliance monitoring is seemingly an endless process. It continues till the organization functions. Organizations must comply with numerous standards and regulations to ensure security. Plus, the regulators keep on adding new requirements periodically to improve the efficiency of compliance. It becomes overwhelming for organizations to keep track of all the regulations they must follow.

ML and AI can easily keep track of the compliance monitoring process irrespective of the number of compliance standards an organization must follow. ML and AI can handle multiple requirements without any glitches in the process.

Improving data quality and analysis

As humans, we all make mistakes; however, AI behaves and thinks just like humans, minus their errors. So when we integrate AI into GRC management, the resulting analysis is error-free reports. And as a result, the quality of analysis improves a lot.

Additionally, when we use humans to study the data, it is impossible to study vast amounts of data. Here ML and AI both help to increase the accuracy of reports by using a higher number of statistical samples.

Streamlining regulatory reporting

An organization has to report periodically about the state of affairs to the regulators. These reports can be prepared by AI without much human intervention. This frees up the GRC professionals to work on the more human side of the GRC process.

What are the benefits of employing AI and ML in GRC software?

We learned about the role played by AI and ML in the GRC program. Let us now examine the benefits provided by the new technologies in GRC software.

Improved compliance
monitoring

Enhanced risk management
and mitigation

Efficient data analysis
and reporting

Automation of
manual tasks

Real-time fraud
detection
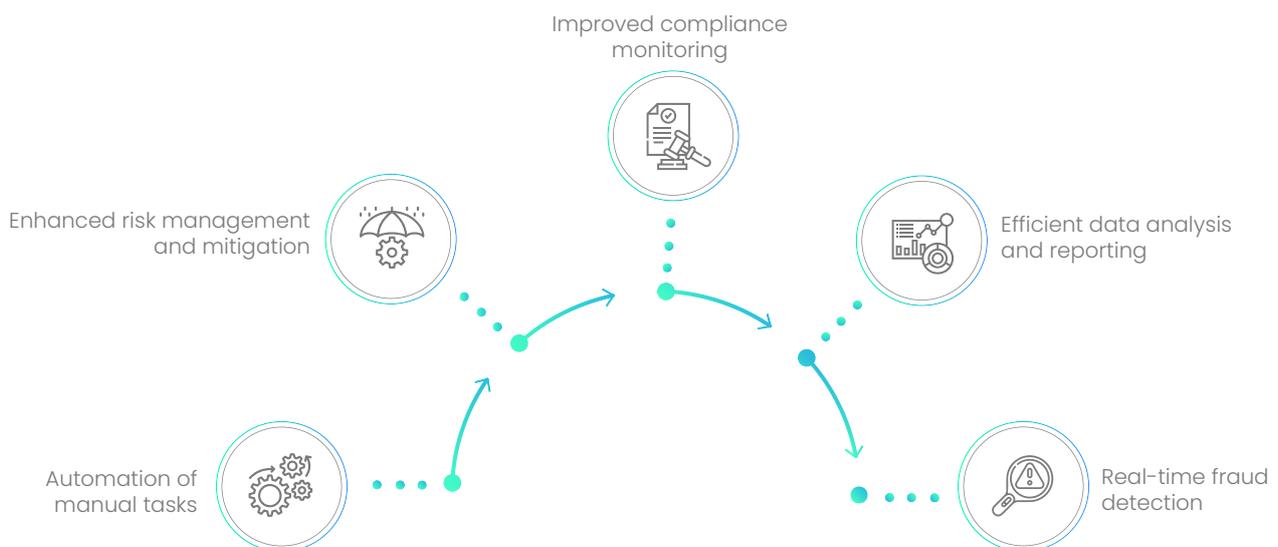
Automation of manual tasks

GRC processes often involve repetitive tasks like data entry, compliance monitoring, and gathering evidence. All these tasks can be automated using AI and ML tools. It not only saves time but also frees up human resources for more productive tasks. The GRC professionals can concentrate on more strategic and value-added services.

Enhanced risk management and mitigation

AI can process a vast amount of data in less time than humans and can identify anomalies, patterns, and correlations that humans may miss. AI enables proactive risk management strategies, early detection of risks, and accurate risk assessment. AI, if implemented accurately, can eliminate potential risks by identifying them well in advance and mitigating them.

Improved compliance monitoring

AI has the potential to continuously monitor vast amounts of data in an organization to detect compliance violations, anomalies, and potentially fraudulent activities. It can flag suspicious activity and notify the relevant authorities in real-time. It can also commence an action against compliance issues.

Efficient data analysis and reporting

ML and AI can analyze unorganized data sets like legal documents, compliance procedures, etc., at a greater speed and efficiency than humans. It results in accurate reporting, identification of relevant insights, informed decision-making, and efficient compliance reporting.

Real-time fraud detection

AI and ML algorithms can analyze real-time data streams, transactional patterns, and user behaviors to detect and prevent fraudulent activities. They can identify anomalies, flag suspicious activities, and trigger immediate actions to mitigate fraud risks, protecting organizations from financial losses and reputational damage.

What are the challenges of implementing AI and ML in GRC software?

Although AI and ML make the GRC system go smoothly, it is not easy to implement AI and ML in the organization's GRC system. Here are some of the challenges that organizations face while implementing AI and ML in the organization's system.

Security and
privacy concerns

Integration with
legacy systems

Governance and
ethical issues

Data quality
and availability

Continuous learning
and adaption
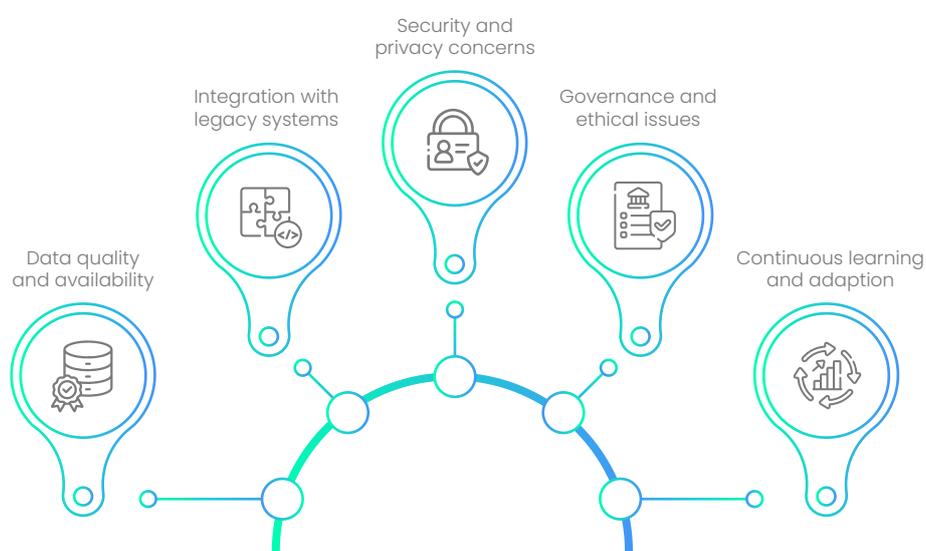
Data quality and availability

For AI to work its magic, it needs to be fed data, a lot of it. There is a saying in the computer world "Garbage in, garbage out." Meaning if the data is not reliable, the information generated from it would be worthless.

Sometimes the organization struggles to feed a vast amount of reliable and relevant data into the system to train it. Plus, in GRC, the data sources are often scattered and heterogeneous, which further affects the availability of data.

Integration with legacy systems

The next challenge an organization might face in implementing AI in its GRC system is a lack of integration with other legacy systems. Every organization has its own apps and software for carrying out various tasks like accounting, financial reporting, human resource management systems (HRMS), and administration.

All these systems need to be integrated into the GRC system in order to make them work in harmony with each other. However, if the organization's other systems are not as upgraded as the GRC system, it will be difficult to marry them. Thus, creating a gap in information
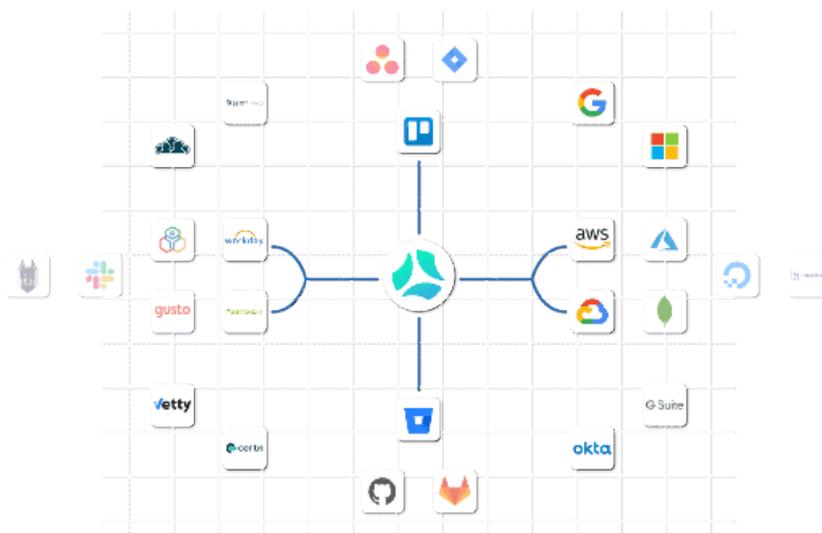
Security and privacy concerns

AI and ML should not violate the privacy of data subjects under any circumstances, especially when dealing with sensitive data. Regulations such as GDPR, HIPAA, and others should be considered before implementing AI in the GRC process.

Governance and ethical issues

Did you know AI can be susceptible to biases? No, it is not biased, per se, but biased data and data from unreliable sources often make AI biased. Sometimes biased algorithms are also to blame for biased AI.

An organization should ensure fairness and ethical consideration in AI and ML in GRC to prevent discriminatory outcomes and maintain trust.

Continuous learning and adaption

AI and ML models thrive on continuous learning and adaptation. However, GRC requirements, regulations, and risk landscapes evolve over time. Ensuring that AI and ML models stay up-to-date and adapt to new compliance challenges and risks is an ongoing challenge that requires regular monitoring and model refinement.

A real-world example of AI and ML in Scrut's smartGRC

Scrut is a GRC (Governance, Risk Management, and Compliance) automation platform that leverages machine learning and artificial intelligence to enhance its capabilities. Here are some of the ways Scrut utilizes ML and AI:

Policies and procedures formulation

Compliance monitoring

Predictive analytics

Risk assessment and mitigation

Automation of manual tasks
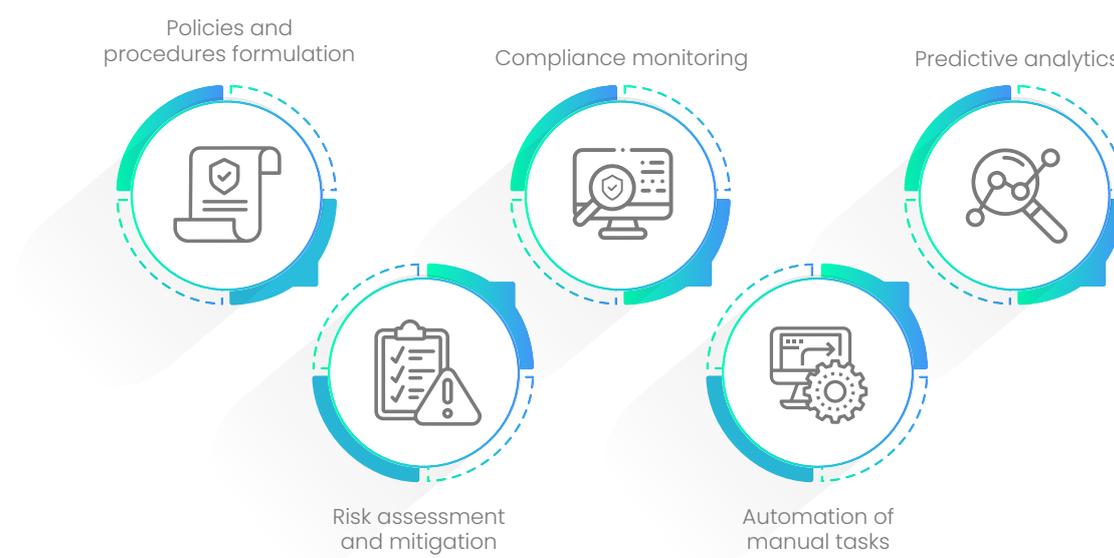
Policies and procedures formulation

Scrut uses the power of the OpenAI platform ChatGPT to formulate policies and procedures for good governance in the organization. It makes the formulation of policies quick and easy for any person, all the while making sure that they correspond with the latest compliance standards. Even a person with no background in compliance can successfully create policies and procedures by following simple steps.

Scrut uses natural language processing (NLP) and conversational interfaces to guide users in the policy creation process, which is simple and quick in itself.

The platform is up-to-date with all the rules and regulations, so the users can rest assured that their policies are accurate and meet the laws and frameworks. With this feature, users can easily generate policies for any industry, including healthcare, finance, and legal.
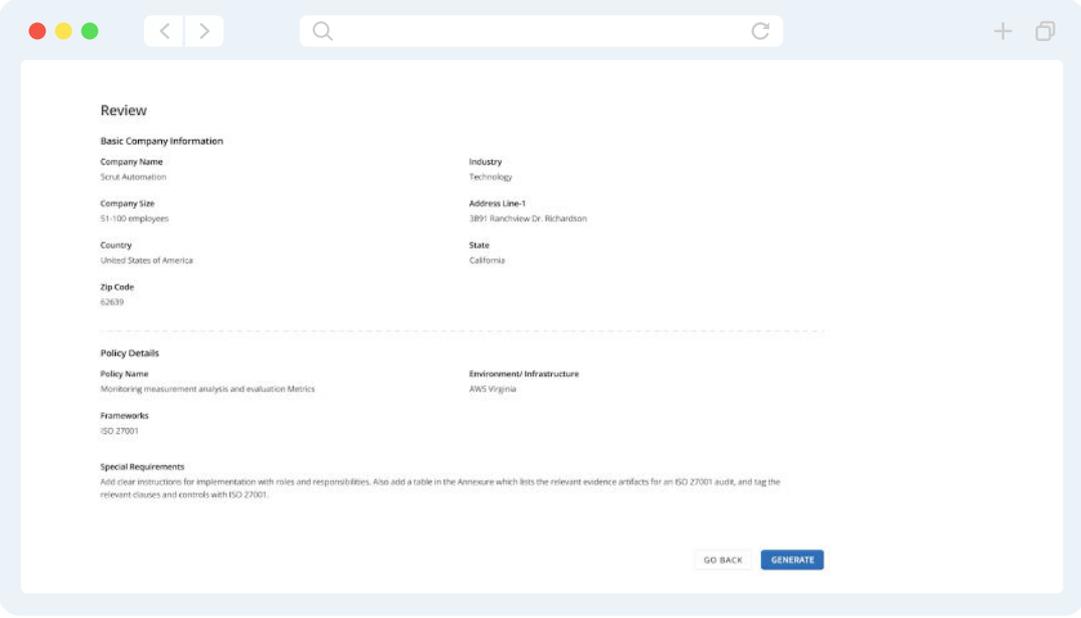
Risk assessment and mitigation

Scrut uses ML algorithms to identify patterns and anomalies in data to enhance risk assessment and mitigation. The platform analyzes historical data to provide risk scores and identify potential risks. It can also make predictions and recommendations based on the data analyzed.

The organization can have a risk register based on its customized fields, such as risk, category, risk treatment, etc.
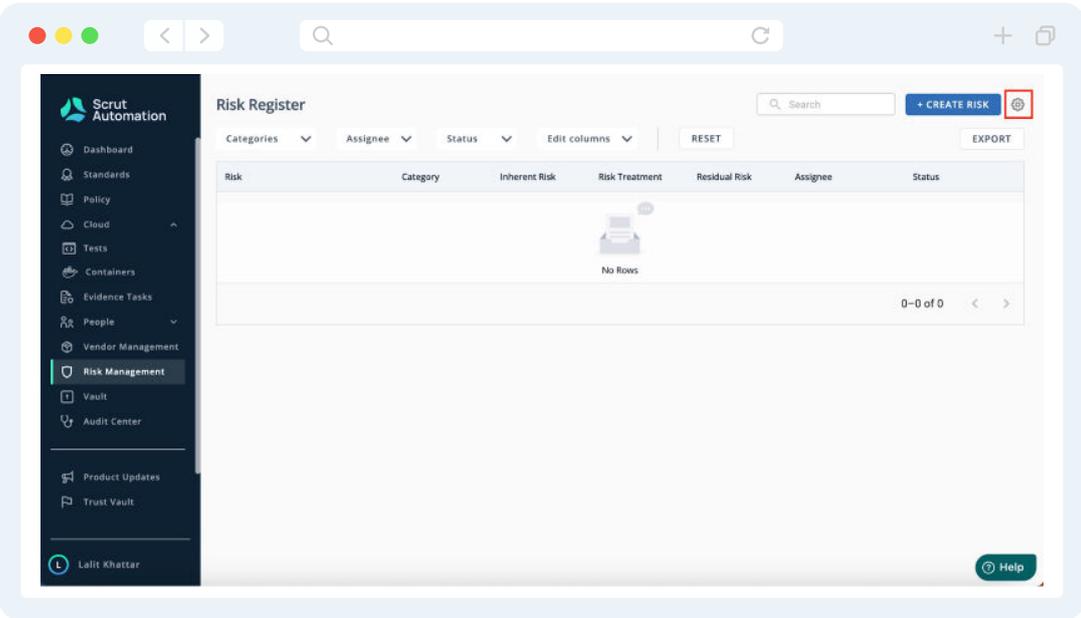
Compliance monitoring

Scrut uses ML and AI to continuously monitor and analyze data to detect compliance violations, anomalies, and potentially fraudulent activities. The platform uses a rule-based engine to identify suspicious transactions, patterns of behavior, and other non-compliant activities.
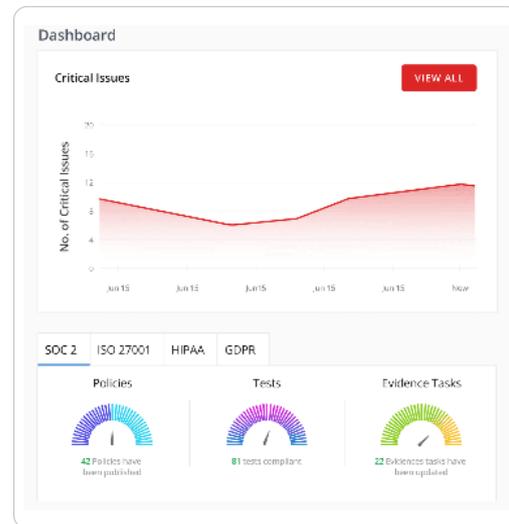
Automation of manual tasks

Scrut automates manual, repetitive tasks such as data entry, evidence collection, and document review using AI and ML. This saves time and reduces the risk of human error.
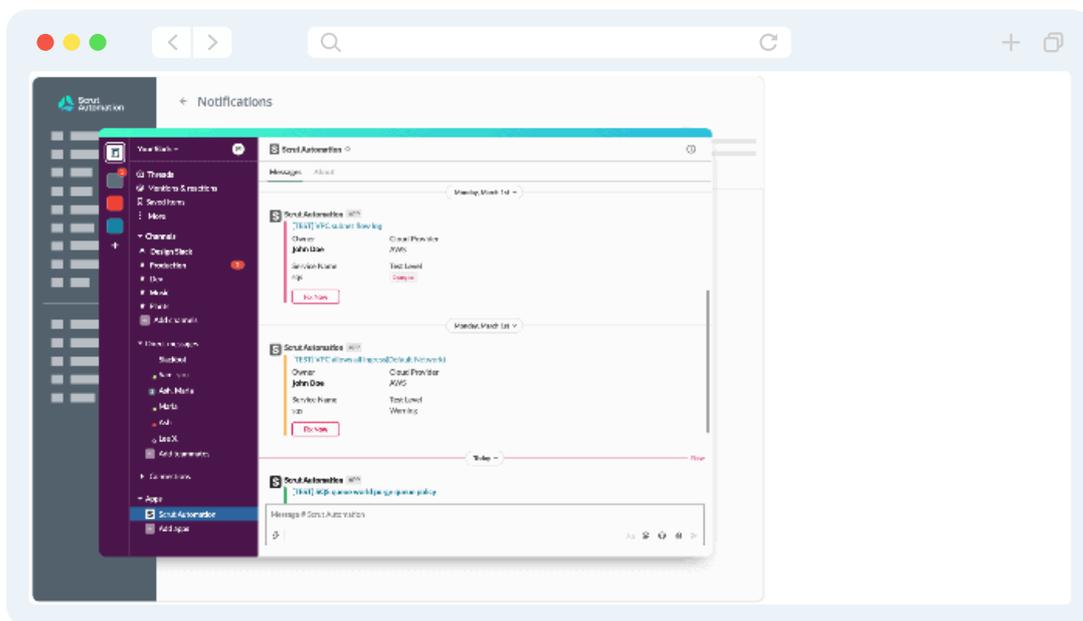
Predictive analytics

Scrut leverages historical data and predictive analytics to identify trends, anticipate risks, and make data-driven decisions. The platform provides actionable insights into potential compliance violations, enabling organizations to take preventive measures and optimize their GRC strategies.

AI and ML in GRC software - what to expect in the near future

Some of the AI and ML trends that we see in GRC software are given below.

Advancements in Natural Language Processing (NLP)

Natural language processing will be increasingly used to analyze textual data like compliance standards, organization policies, and legal documents. This will help in automating the identification of compliance requirements, monitoring compliance, and improving the GRC process.

Transfer learning enables the transfer of knowledge gained from one NLP task to another. Organizations can use the models pre-trained on large data sets on other tasks to make the training process redundant.

Transformer models of NLP, like Bidirectional Encoder Representations from Transformers (BERT) and Generative Pre-trained Transformers (GPT), capture contextual relationships between words in a sentence, enabling a better understanding of the overall context. Transformers have improved tasks like machine translation, text summarization, and question-answering systems.

NLP models can analyze vast amounts of textual data, including internal and external sources, to identify and assess potential risks. By processing documents, reports, news articles, and social media data, NLP algorithms can provide insights into emerging risks, regulatory changes, and reputational threats, enabling proactive risk management.
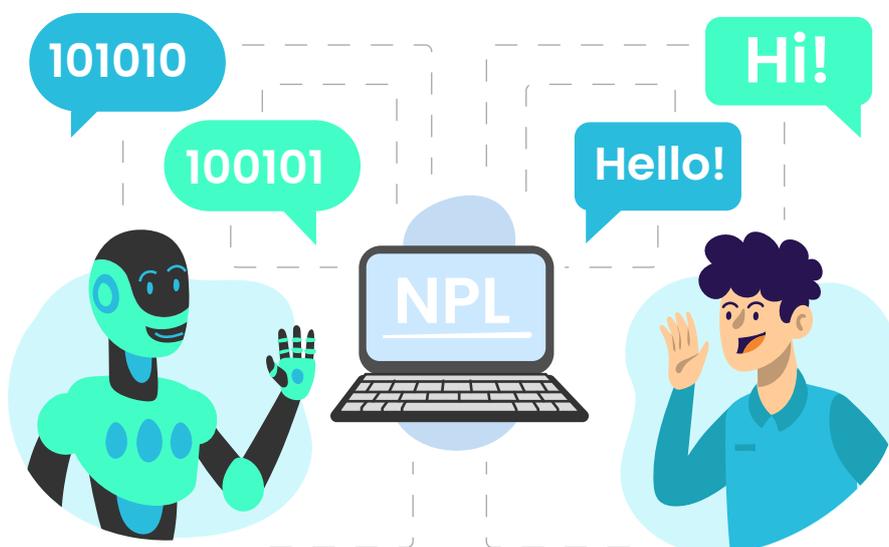
Increasing adoption of predictive analytics

AI is much more powerful than human beings in predicting compliance risks. In the future, humans will rely more on AI and ML to identify and address compliance risks with minimal involvement. By analyzing historical data, monitoring trends, and detecting patterns, organizations can take preventive measures to minimize compliance violations and ensure regulatory adherence.

It can help detect anomalies and irregularities in real-time or near real-time. By continuously monitoring data and comparing it to established patterns, predictive analytics algorithms can identify potential compliance breaches, fraud, or unusual activities, allowing organizations to take immediate action.

Predictive analytics can automate data analysis processes and reduce manual efforts involved in risk assessment and compliance monitoring. Organizations can achieve greater efficiency, speed, and accuracy in identifying and addressing compliance risks by leveraging algorithms to analyze large volumes of data.

Integration with blockchain technology

Blockchain technology is known for its decentralized and immutable nature that ensures that data stored in this method cannot be altered or tampered with. By employing this technology in GRC, high-value organizations can ensure data integrity and transparency for audit trails.

Smart contracts on the blockchain are automatically executed when certain conditions are met. These smart contracts can be used to automatically trigger predefined rules when the conditions are fulfilled.

Blockchain can greatly improve identity and access management (IAM) practices to secure access management in an organization. Blockchain-based identity management software can enhance overall security, prevent identity theft, and enable the efficient sharing of data among stakeholders.

Blockchain can bring numerous benefits to the GRC process along with other processes in the organization.

Conclusion

You would never imagine an organization in any era totally neglecting its risk management strategies or its governance duties. However, the role of GRC is becoming more critical in modern organizations. It is becoming more defined. Organizations are assigning dedicated staff to perform GRC duties which is quite new. This is due to the new regulations regarding digital data and its usage.

As GRC is becoming critical, new technologies, including AI and ML, are being employed to carry out the GRC processes. These technologies have made the GRC process simpler and more efficient. However, the implementation of AI and ML is not an easy feat. we saw the challenges an organization might face when implementing these new technologies. We also saw how organizations can overcome these challenges.

ML and AI provide numerous benefits to organizations not only in GRC processes but also in other processes. Over and above AI, there are other advances in technology like NLP, predictive analytics, and blockchain that can be used in GRC in the future to make it more efficient. Many GRC experts like Scrut have come up with solutions that employ these new technologies in their GRC software to give their customers the benefits of innovation.