

ANALYTICS

Deeper Insights and Data-driven Decisions Through Al

Augmented analytics by Qlik

With data comes the possibility of transformative power, but organizations have not fully realized this potential. Many believe AI is the answer. However, AI will not fully replace human intuition and decision making. In fact, in the age of AI, human intuition will be at a premium.

Most business problems can't be solved purely by algorithms, machine learning, or even generative Al. They require human interaction and perspective. At Qlik®, we've always believed in empowering people with data. To that end, we build Al that capitalizes on human intuition instead of replacing it, helping more people uncover the best insights regardless of their skill level. Augmented analytics allow organizations to finally break through low levels of adoption and limited insight, reaching the larger population of business users with actionable information. Al and ML deliver deeper insights to everyone, allowing all users to get a better understanding than what is traditionally possible with data visualization tools. They help business users gain access to answers and insights even when they lack the data literacy skills, bandwidth, or desire to create visualizations or navigate dashboards. Business analysts gain efficiency, no longer forced to spend far too much of their valuable time wrangling with data and creating visuals. Data scientists can reach the broader community of decision-makers with interactive analytics driven by their models. With a portfolio approach to AI that serves users of all skill levels in the right ways, augmented analytics can lift current constraints and help organizations realize the full value of their data.

Augmented analytics help everyone

Business Users:

More access through search and natural language

Business Analysts:

Efficiency and quality through automation and assistance

Data Scientists: Broader reach through real-time analytics integration

Everyone gets deeper, more meaningful insights.

Qlik Staige applies this approach, providing a holistic set of solutions to support any organization's AI strategy. With Qlik Staige™, Qlik offers the most complete and integrated set of solutions for AI-enhanced, augmented analytics available — with capabilities that deepen insight, broaden access, and drive efficiency for everyone. We combine our unique Associative Engine with AI and ML to deliver a full range of augmented analytics capabilities, including automated insight generation, natural language interaction in over 10 languages, advanced and predictive analytics, AI assistance, and real-time integration with data science and generative AI.

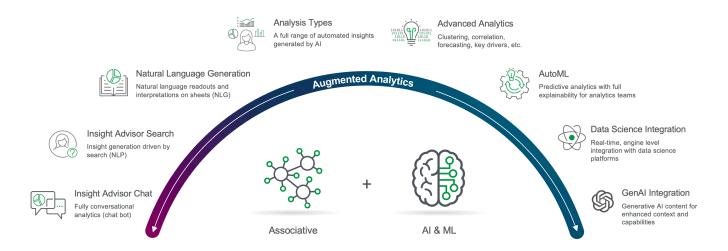
Insight Advisor is your intelligent AI assistant, generating advanced analyses and insights in a variety of forms and interacting with users through search, chat, and NLG. Qlik AutoML (automated machine learning) offers predictive analytics capabilities directly to analytics users and teams in a simple, code-free experience, for a wide variety of everyday use cases. Finally, with advanced analytics integration you can deliver the power of third-party data science and generative AI technologies directly to business decision-makers with real-time calculations and results, allowing them to freely explore and interact.

With Qlik, you get Al that creates powerful synergy between man and machine. It has been an integral part of our technology for many years, not as a bolt-on or one-size-fits-all solution, but built into our platform at a foundational level. The proof is in the results — there are no compromises.

Intelligent AI Assistance

Qlik offers a unique technology advantage, delivering true augmented analytics built into our platform at a foundational level. We support human exploration with our one-of-a-kind Associative Engine, which provides interactivity, context, and speed you simply can't get with SQL/RDBMS query-based tools. When combined with AI and machine learning technology, this broadens insight and simplifies interaction with data. The result is augmented analytics with a full picture of your data and powerful context awareness.

Drawing from these core technologies, Qlik provides Al-generated analyses and insights that are delivered in multiple forms through a variety of user experiences. It auto-generates a full set of context-aware, visual analyses and narrative insights for the user based on selections, search, and a full range of user-selectable analysis types. It offers assistance with analytics creation and data preparation; supports natural language search, generation, and conversational interaction; and generates a variety of advanced analytics. It also features a robust business logic layer for customization of insight generation and natural language processing.



The Associative Difference®

When you're using data to transform your organization, you need a powerful vehicle for free-form data exploration and analysis at scale. However, most SQL and query-based tools limit people to predefined questions and partial subsets of data. These tools struggle to combine data sources, understand context, and perform at scale. This blocks free exploration and puts the brakes on discovery.

Qlik does things differently. At the heart of our platform is a one-of-a-kind, high-performance Associative Engine, built from the ground up to deliver interactivity, context, and speed. With Qlik, both users and Al benefit from free-form interactive exploration — without constraints or boundaries — at the speed of thought. By managing the analytical context (selection state) and understanding the data that is both related and unrelated to it, our engine uncovers hidden insights that would be missed with query-based tools.

Automated Insight Generation

Using AI to auto-generate insights helps to minimize cognitive bias, amplify discovery, and drive data literacy. Insight Advisor provides AI-generated analyses and insights that are delivered in multiple forms through a variety of user experiences. Users get a full range of analysis types to choose from, which are complete with visualizations, natural language insights, and even entire dashboards for exploration. Advanced analytics generation includes comparison, ranking, trending, K-means clustering, correlation and statistical analysis, geographic analysis, key driver analysis, period-over-period analyses, time-series forecasts, and more.

Organizations are increasingly looking for better ways to generate analytical content. With Insight Advisor analysis types, business analysts and power users can unleash their full data literacy skills to easily and quickly generate the analyses they are looking for without manually creating visualizations or writing complex expressions. Qlik delivers the right analytics to solve business problems using Al instead of just giving users developer tools to build visualizations. Your business becomes more agile, allowing you to quickly understand and respond to what your data is telling you.



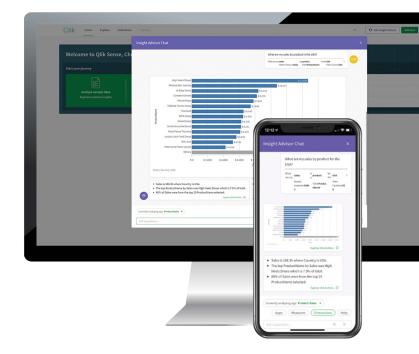


Search-based Visual Discovery

With search-based discovery, Insight Advisor autogenerates the most relevant impactful visualizations and analyses for users based on natural language processing. Users get a series of newly created and prioritized charts, which they can edit, adjust, and directly add to fully interactive dashboards for further exploration. Insight Advisor is also uniquely context aware — working in conjunction with our Associative Engine to reflect the user's selection state in autogenerated visualizations.

Conversational Analytics

Conversational analytics allow people to interact through natural language, boosting adoption and unlocking the power of data for less sophisticated analytics users. With conversational analytics, your organization can accommodate far more users with a faster and easier way to ask questions, generate insights, and make datadriven decisions. Insight Advisor Chat offers a fully conversational, natural language analytics experience in the Qlik hub, and chat can be easily added to Microsoft Teams for group-based conversational interaction where you work. Natural language processing (NLP) understands user intent, while natural language generation (NLG) delivers added insight and perspective for a deeper understanding. Insights include autogenerated charts, narrative insights, observations, and more. Because it works across Qlik apps, users can find the right insights even if they don't know where to look.



Accelerated Creation and Data Preparation

Even with AI-generated insights, business analysts and power users still need to manually create analytics using a traditional build process. Here again, Qlik provides assistance. You can easily create, modify, and personalize based on your own skill level with AI accelerating and automating the process. This includes association recommendations to easily combine different data sources, chart suggestions that render the best types of visualizations based on the data, fully automated authoring through Analysis Types, and a variety of smart data preparation and authoring functions. Because it's powered by our Associative Engine, there's also no need to wire visualizations to update together or construct complex SQL queries.

Qlik provides a complete set of data preparation and integration capabilities, allowing users to work with nearly limitless combinations of data both big and small. This allows non-technical users to visually combine, transform, and load data from multiple sources — without leaving any data behind. Users can easily combine data sources using visual drag-and-drop functionality, with Insight Advisor helping to identify the best associations to link them together. Intelligent profiling automatically processes various data types and provides descriptive statistics. Qlik also includes a full set of visual transformation features such as derived fields, binning, and concatenation.



Automated Machine Learning

Qlik AutoML brings Al-generated machine learning models and predictive analytics directly to your organization's analytics users and teams, in a simple yet powerful user experience focused on driving value for the vast majority of everyday use cases that are not handled by professional data scientists. With AutoML, you can easily generate machine learning models, make predictions, and test scenarios — all within an intuitive, code-free user interface.

Qlik AutoML easily profiles data, identifies key drivers in the dataset, and generates ML models you can refine and deploy. You can then make future predictions complete with prediction influencer data (Shapley values) at the record level. This allows you to understand not only what might happen, but why predictions were made, which is critical to making the

best decisions and taking the right actions. Predictive data can be easily published into analytics apps and models can be integrated for real-time exploratory analysis and what-if analysis.

With limited data science resources, most organizations struggle to generate predictive insights about what might happen in their business and why. With Qlik AutoML, your analytics teams can go beyond descriptive analysis to more robust predictive and prescriptive analytics offering detailed insight that's uniquely powerful when combined with our best-in-class associative exploration.



Integrate, Extend, Embed

Data science integration

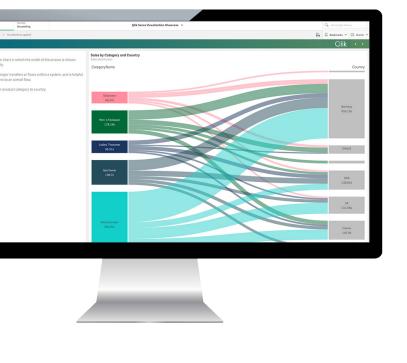
Advanced analytics integration allows your organization to deliver the power of third-party data science and predictive models directly to business decision-makers. Qlik allows people to directly interact with advanced analytics and predictive models, updating calculations in real time as users make selections. This interactivity allows people to refine context and then evaluate the results within visualizations. It's a radically different approach than the typical batch processing and static delivery, and puts the power to ask unique questions in the hands of everyone.

Open APIs provide direct, engine-level integration between Qlik and third-party tools, with data being exchanged and calculations made in real time as the user explores. Our Associative Engine only passes relevant data based on user-selected context, which minimizes processing times and provides an interactive, real-time experience. Advanced analytics integration can be used with any third-party calculation engine. We offer native connectors for Amazon SageMaker, Amazon Comprehend, Azure ML, connectivity for custom models built in languages such as R and Python, and more.

Generative AI Integration

Generative AI offers exciting new capabilities and potential, and with Qlik, users benefit from the same engine-driven real-time integration with third party models. You can do things like generate natural language insights; perform sentiment analysis, conduct few shot learning and classification; synthesize, summarize, and enrich data and text; and allow users to ask questions in real time. And this is only the beginning — our customers and partners have the ability to innovate and build all kinds of new solutions using generative AI.

Questions can be constructed by app developers with prompt engineering and data sets from Qlik analytics. With our Associative Engine, as users refine context, the engine determines applicable subsets of data and sends data tables along with questions to generative Al for processing in real time, supporting multi-record use cases like summarization and classification. Every time the user makes selections, they get new results with the most relevant, in-context insights and content from generative Al. We offer real-time connectors for OpenAl, Azure OpenAl, and a number of Amazon Bedrock foundation models.



Extend and Embed

Qlik offers a complete set of open APIs and tool sets supporting AI-powered extensions, embedded analytics, and more. Developers can rapidly customize, extend, and embed capabilities to create new applications and meet unique business requirements using industry-standard technology skill sets. Furthermore, developers can embed powerful augmented capabilities such as analysis types, search and conversational analytics, and access to business logic directly into operational apps. Qlik's vast ecosystem also offers numerous partner- and developer-created solutions and concepts for augmented capabilities — built on top of our platform.

With our platform, organizations can build augmented and advanced analytics that serve new use cases and meet unique requirements — even if it's not available right out of the box, it can be easily created. Organizations can embed powerful augmented capabilities in operational apps for deeper insight into where and how people work.

Deeper Insights and Data-driven Decisions for All

Al-enabled solutions are only as good as their weakest link. Some may have robust algorithmic capabilities, but if they can't support the human mind and how it thinks, insights will be flawed and mistrusted. If a solution is based only on a single type of user experience, it will only handle one type of business problem well. Notably with generative Al solutions, if Al is simply a bolt-on, you also lose the real power of augmented capabilities to drive the most impactful insights.

By using the holistic, integrated suite of Al capabilities provided by Qlik Staige, you can avoid these obstacles and bring the power of Al to data with the technology, ecosystem, and expertise to deliver better insights, faster. With Al-powered analytics, an integral component of Qlik Staige, you can empower a full range of users with augmented capabilities, driving more value from data in more areas of your business and supporting everyone with the right types of experiences to make the best decisions. You can do this with unmatched performance, robust governance, and full SaaS deployment with hybrid and on-premises flexibility for the most demanding enterprises.



Qlik

About Olik

Qlik transforms complex data landscapes into actionable insights, driving strategic business outcomes. Serving over 40,000 global customers, our portfolio leverages advanced, enterprise-grade Al/ML and pervasive data quality. We excel in data integration and governance, offering comprehensive solutions that work with diverse data sources. Intuitive and real-time analytics from Qlik uncover hidden patterns, empowering teams to address complex challenges and seize new opportunities. Our Al/ML tools, both practical and scalable, lead to better decisions, faster. As strategic partners, our platform-agnostic technology and expertise make our customers more competitive.

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