

Insight to Impact

Exploring the analytics journey from decision support to Al-powered action

Foreword



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Analytics has been on a long journey. In many ways, its evolution can be viewed through the lens of those engaging with it. Looking back to the origins in academic journals and early business intelligence frameworks, analytics resided firmly in the domain of computer and data scientists. Harnessing it effectively required specialist skills that were confined to a handful of experts.

Cloud and AI technologies have torn down the barriers that once kept analytics reserved for those experts. Now, anyone with a curious mind and a laptop can dive into data. You'll find analytics terminology used as common parlance among a broad business community, who don't need to understand the finer technical points of how the information they need gets to them. Conversations around analytics are increasingly at a business level, developed to democratize empowerment through data (e.g., decision making) rather than access to the data itself.

Over the last 30 years, Qlik has been at the center of this evolution. Although the underlying technology is more advanced, analytics would be nothing without human intuition in the loop — every step of the way. Even as new innovations change our role, there is still a role. The exponential rise of Al makes us more important than ever; and analytics experts are the most crucial stewards of all as we wrestle with the huge potential and risks of a new era.

In this companion guide,

<u>Visionary Voices Episode 6</u>,

we'll consider some of the
lessons and themes that can
be drawn from the early days
of business intelligence, before
exploring the role of emerging
technologies in democratizing
data and analytics — and
where it is going next.



Laying the foundations

It's sometimes said that you need to understand where you've been in order to know where you're going. There's no moment throughout history where you won't see evidence of humans understanding the value of data, but it was in the 1950s that the concept of business intelligence — using data to inform decisions — formally emerged.

The early foundations of analytics can be observed in the 1970's under the original name for Qlik's own category of software, decision support systems. Even then, the difference between this and other forms of information management was about helping humans make strategic choices and drive better business outcomes.

When Howard Dresner, then a Gartner analyst, officially coined the term "Business Intelligence" (BI), it marked a further shift in the concept. If early decision support systems were model-driven and focused on providing procedural support for decision making, the 1990s saw a transition towards a more data-centric approach. It was the collection, storage, and analysis of enterprise data that represented a far more integrated and comprehensive solution.

As first-generation tools were often rigid and report-centric, the early 2000s witnessed the emergence of more agile BI systems. This led to the concepts of data discovery and ultimately "self-service" analytics, empowering lines of business to more quickly adapt to changing environments and solve problems. Data visualization became a critical component of this, enabling business analysts to understand and communicate insights more effectively.

But the increasingly sophisticated and academic data visualization market began to lose sight of the original purpose of these systems — to support and inform human decision making. The emphasis on creating visually stunning dashboards sometimes

overshadowed the need for actionable insights. This imbalance meant that expert data visualization skills were required to make use of the data being presented, resulting in low adoption rates and defeating the purpose of platforms intended to be accessible by a broader business audience.

Recognizing the limitations of visualization-centric approaches, the market began to refocus on supporting decisions and actions for larger communities of business users. Cloud computing and AI significantly accelerated this process when they burst onto the scene, changing analytics forever.



Balancing the human-Al equation

Visual analytics changed how people consume information, but the explosion of AI technologies has taken this even further. The integration of AI into analytics has offered an opportunity to democratize access to insights previously reserved for analysts and data scientists. The emergence of advanced technologies such as natural language query (NLQ), machine learning (ML) and generative AI have found their place within analytics processes, providing deeper insights and fast answers to users of all skill levels.

Al has caused organizations to reflect on how they are making decisions and acting on them. From the perspective of the human user, the initial introduction of predictive capabilities and machine learning provided better insights from data. This led to better decisions, but not necessarily actions. The actions that were prompted were fairly manual in nature, such as updating CRM systems.

Most recently, the integration of generative AI into analytics systems is unlocking a whole new level of opportunity, taking things from predictive to prescriptive analytics platforms that recommend actions. Culturally, business users interacting with data via conversational platforms using simple, natural language have greater access to analytical insights and knowledge. They receive personalized answers rather than just raw data or visualizations that lack explanation. It's already affecting the demographic of company leaders, with more digital natives taking senior roles that are influencing their organizations to be more adaptable to change and technological breakthroughs.

Beyond technological advances, the onset of AI and machine learning has fundamentally altered the way people make decisions. To achieve positive outcomes — and the competitive advantage that comes with them — effective collaboration between humans and AI is needed. The market is moving towards a paradigm where decisions are either augmented or entirely automated by AI, and successfully balancing this equation will be crucial. Humans remain essential to effective decision making, providing business context and critical thinking that AI can't currently achieve. The best AI systems will harness human intuition and create synergies between man and machine. We are moving beyond the democratization of data — and towards the democratization of decisions.



Exploring the next phase of analytics

Wherever analytics takes us next, the continued evolution of AI will likely dictate the path. As agentic AI emerges, the role of the human will change again — but how? This next phase will mark a shift away from systems that only respond to human-defined queries and towards those that can proactively identify patterns, anomalies, and opportunities within vast datasets. It's this ability to anticipate and autonomously initiate analysis and action that is poised to have the greatest impact.

The always-on nature of agentic AI — working in the background in real time — means that connecting it with natural language assistants can bring analytics further into everyday workflows. Imagine all the power of proactive monitoring and predictive analytics packaged within an intelligent partner that's embedded into workplace tools. As these assistants evolve, we will see them adapt to users' needs, learning to anticipate and support in the best possible ways. This doesn't diminish the role of the human, infact it underscores it. The more quickly AI can learn, the more effectively it can interact with humans to harness intuition, context, and critical thinking.

These AI systems will continue to become more sophisticated and powerful with the combination of multiple agents working in harmony. This broadens the set of capabilities and breath of data that can be harnessed. Insights and information from both structured and unstructured sources can be combined to deliver complete, contextually relevant answers. Analytical systems can forecast trends, spot outliers and anomalies, propose new scenarios, and suggest the best actions to drive optimal outcomes.

With all this advancement and change, the key to successful and differentiated Al deployment lies in optimizing human decision making based on our changing requirements and context. People, whether technical analysts or business leaders, want to interact and consume information in different ways. Some still want to consume their data in dashboards and reports. Others will respond better to natural language and embedded experiences, engaging in a more conversational way. Regardless of how information is consumed, Al will be the cornerstone for making humans smarter, faster, and better. While some processes will be fully automated, people will remain at the heart of most decision making. Our roles may evolve, but they won't diminish.



Qlik transforms complex data landscapes into actionable insights, driving strategic business outcomes. Serving over 40,000 global customers, our portfolio leverages advanced, enterprise-grade AI/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 AI/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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