Beyond the Hype:

How to Get Real Value from AI in Analytics

Every day, AI is showing up in the products we use and the activities we engage in, from our workplace apps to our smart-home devices to our consumer experiences. And in the coming years, it will only become more prevalent.

Hopes are high, promises are grand, and the potential is huge. But the reality on the ground is often disappointing.
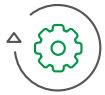
It doesn't have to be – at least, not in the realm of business intelligence. In the last couple of years, remarkable advances have been made, and they're available right now in existing analytics solutions. It's just a matter of understanding a few basic principles and making informed choices about where to focus your efforts.

Worldwide spending on cognitive and Artificial Intelligence systems will reach $77.6 billion in 2022, more than double the $35.8 billion forecast for 2019.

IDC, WORLDWIDE SEMIANNUAL COGNITIVE AND ARTIFICIAL INTELLIGENCE SYSTEMS SPENDING GUIDE

LEAD WITH DATA Qlik Q

The beauty of Augmented Intelligence

What's the key to successful AI in analytics? Augmented Intelligence – an approach that brings together the best of machine intelligence and human intuition to speed time-to-insight, surface unexpected discoveries, and drive data literacy for users at any level.

Automated tasks

AI can speed time-to-insight by combining data sets, preparing and transforming data, and creating the best types of visualizations.

Suggested insights

Based on input from the user and relationships in the data, machine intelligence can offer visual, descriptive, and predictive insights.

Peripheral vision

As users ask questions, AI can point to adjacent and hidden insights they otherwise wouldn't have seen.

Conversational interaction

AI supports powerful new ways to interact with data, such as conversation, voice, and augmented reality.

What should you look for when evaluating AI in analytics?

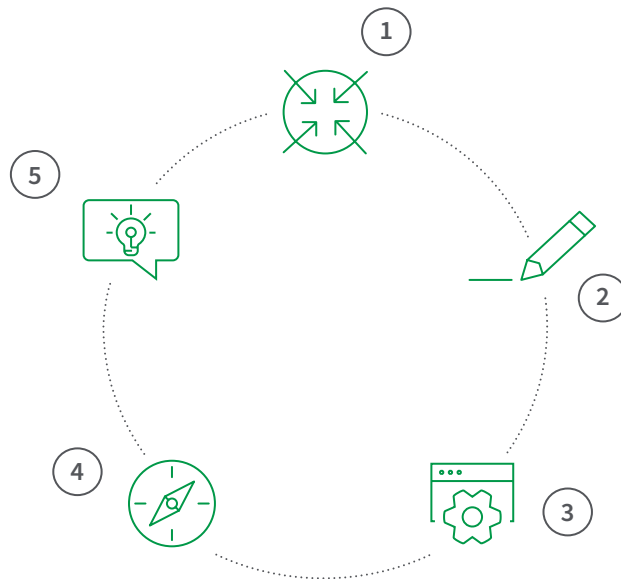### A powerful, scalable calculation engine

Look for a system that gives users the power to search and explore all their data in any direction, with no pre-aggregated data or predefined queries.

An open, extensible platform

Choose a platform that can be extended to handle new use cases, and embed insights generated by AI within operational apps and business workflows.

Augmenting the user across the analytics cycle

You don't have to wait to reap the benefits of AI-enabled analytics. Existing technologies can enhance human intuition across the entire analytics lifecycle.

1. ACQUIRE

- Smart connectivity
- Data catalogs and reuse
- Data augmentation suggestions

2. PREPARE

- Smart data profiling
- Automated data transformation
- Assistance linking sources together

3. VISUALIZE

- Chart generation and suggestions
- Integration with 3rd party ML platforms
- Custom visualization extensions

4. EXPLORE

- Algorithmic and predictive insights
- Conversational analytics
- Non-linear exploration and search

5. SHARE

- Insight management
- Alerting and notification
- Embedded analytics and workflows

An awareness of context and intent

The system should be able to understand user context and/or intent when accessing data and surfacing insights.

Machine learning to improve over time

As users interact with data, the machine should learn from context and intent, improving the accuracy and relevance of suggestions over time.

Visibility into how calculations are made

Look for a system that provides visibility into how insights are generated and which data was used – instead of a black box.

Caution: Technology roadblocks

Most of today's analytics solutions rely on technologies that weren't designed to support human-machine collaboration:

RELATIONAL DATABASES

Developers have to make assumptions and "hardwire" questions; users and AI are limited to these preselected views of data.
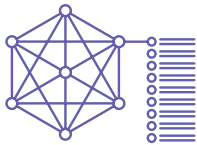
BLACK BOX SYSTEMS

Without transparency, users become distrustful and adoption is compromised.
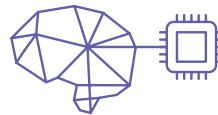
LIMITED LEARNING

Without seeing the full data set, the AI can't learn from user context. Suggested insights don't reflect user intent, and natural-language interaction isn't natural.

Qlik's unique approach

Our goal at Qlik® is to make people smarter using machine intelligence – without restricting them to predefined questions selected by developers or analytical frameworks dictated by machines. Our unique Associative Engine brings together unlimited combinations of data and offers users unprecedented freedom of exploration, in ways not possible with relational databases and queries.

Associative Indexing $\times$ Augmented Intelligence $= AI^2$

And now we've taken Qlik Sense® to the next level with the introduction of the Qlik Cognitive Engine, which works in combination with our Associative Engine to offer context-aware suggestions and automation aligned with user behavior and intuition. Our Cognitive Engine drives a range of AI capabilities, including visual and associative insight suggestions, natural language interaction, recommendations for combining data sources, smart data preparation, and assistance with chart creation.

Discover a new breed of AI

Ready to learn more about Qlik's approach to Augmented Intelligence? Visit our website to see demos, read analyst reports, and watch on-demand webinars.

Visit us at www.qlik.com/AI.

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