



5 Considerations for Using AI in Analytics



The evolution of AI in BI.

Since its inception in the 1990s, business intelligence has evolved – significantly. What began as a highly technical process restricted to a few specialists in IT has become a much more accessible and intuitive endeavor, extending the power of discovery to users in every area of the business. Now, thanks to the rise of AI and machine learning (ML), organizations are more eager than ever to embrace the full potential of data.

1ST-GENERATION ANALYTICS: REPORT-CENTRIC

In the early days, a skilled team within IT managed a complex set of technologies that delivered predefined reports and ad hoc responses to business requests for data. A user would formulate a question, submit it to a data analyst, and wait (sometimes for weeks) for a response, usually in the form of a new report.

2ND-GENERATION ANALYTICS: VISUALIZATIONS & DASHBOARDS

With the advent of user-driven analytics, business users were given the power to prepare data, load it, and interact with it in intuitive, visual ways. And while the benefits are clear, many lightweight visualization tools present challenges around governance and scalability, and their focus on content authoring limits adoption to power users.

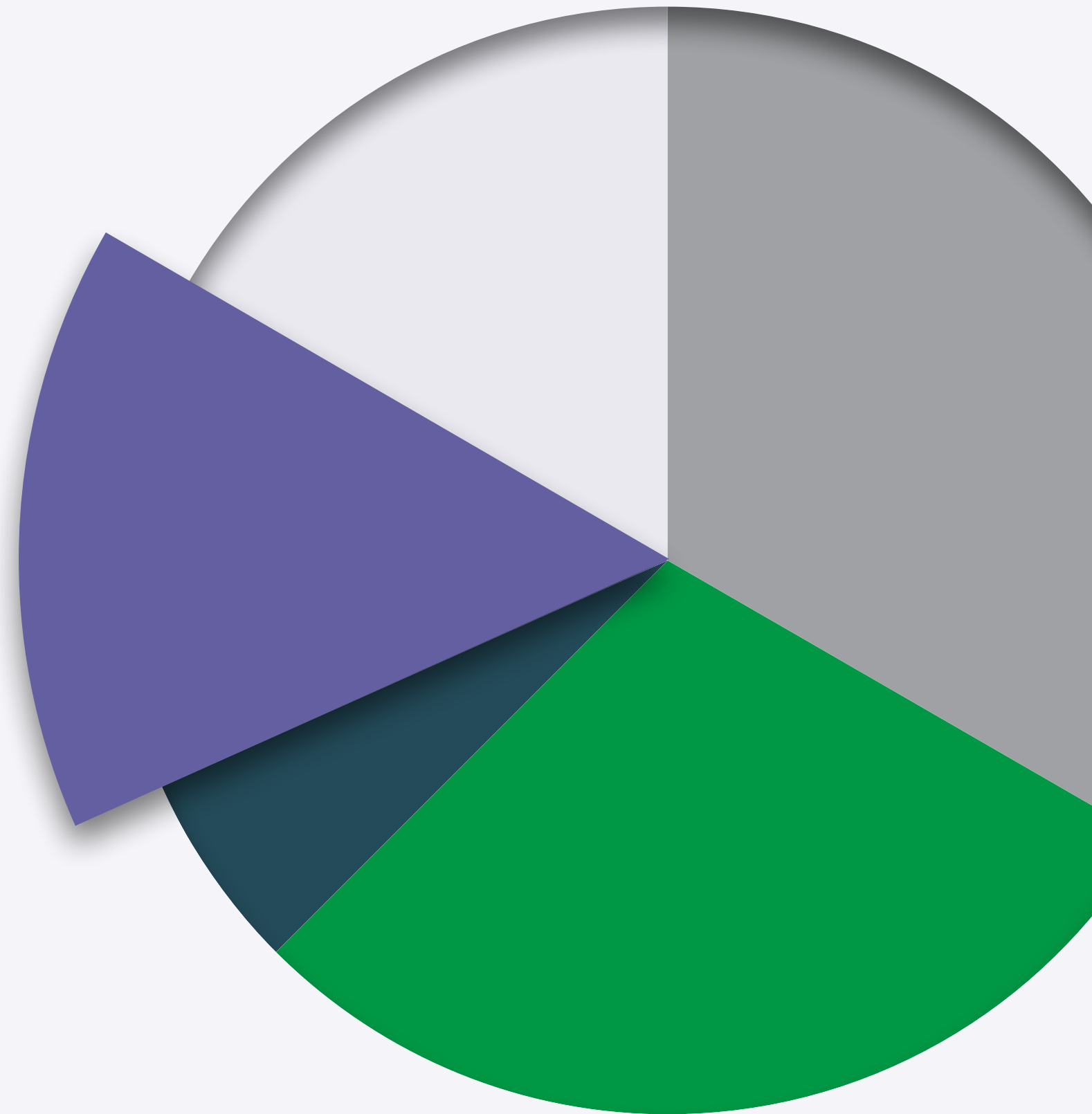
3RD-GENERATION ANALYTICS: AUGMENTED ANALYTICS

Now we're experiencing the third generation of analytics, where AI is augmenting the entire analytics lifecycle. Today, organizations can serve all users and use cases with the right experiences, such as automated insight generation, natural language interaction, and machine learning. And with large language models like OpenAI's ChatGPT, the possibilities are limitless.

What to consider when you're evaluating AI in analytics.

AI can deliver deeper, more meaningful insights; provide natural language interaction; and automate manual tasks such as analytics creation – all of which will greatly boost adoption and data literacy.

In the following pages, you'll find five key considerations to make sure your current solution – or the one you're evaluating – provides the most possible value from AI.





1

Does the solution leverage AI to augment the full range of analytics capabilities?

- ✓ Can the solution enable complex data problems to be addressed with traditional human analysis alongside machine augmentation?
- ✓ Can the solution support natural language interaction – including search-driven insight generation, conversational analytics (chat), and natural language generation (NLG) on dashboards – using internal data?
- ✓ Can users leverage AI to generate a full range of advanced analyses – such as clustering, forecasting, period-over-period, etc. – in a few clicks, complete with AI-generated visualizations and NLG?
- ✓ Can the solution integrate natural-language insights and data and support real-time Q&A from generative AI sources, including OpenAI/ChatGPT?
- ✓ Does the solution support integration with data science platforms such as Amazon SageMaker, Azure ML, etc. to deliver real-time calculations within dashboards as the user explores?



2

Does the solution have AutoML and predictive analytics capabilities?

- ✓ Can analytics users easily generate ML models and make predictions through a simple yet powerful no-code experience – without having to be data scientists?
- ✓ Do the predictions include full explainability data (SHAP values), allowing you to understand not just what might happen but why, so you can take the best action?
- ✓ Can users quickly publish the data and/or directly integrate models into your analytics platform for interactive exploration of predictive data?
- ✓ Can you perform what-if analysis to test hypotheses with real-time predictive calculations on subsets of data defined by user selections?



3

4

Does the system allow you to actually take action?

- ✓ Can you drive intelligent alerts based on advanced and predictive insights?
- ✓ Do you have automation capabilities to trigger action in downstream systems and workflows?
- ✓ Is there a fully interactive mobile app with alerting capability supporting action at the point of decision?
- ✓ Does the system include changing data through a real-time data pipeline that drives immediate action?

Does the platform include AI and ML as foundational services?

- ✓ Does the solution include a purpose-built analytics engine, or does it rely on SQL and query-based architectures that limit insight?
- ✓ Are AI and ML built into the platform at a foundational level, supporting a full range of analytics experiences?
- ✓ Does the solution combine interactive, engine-driven discovery analytics with AI and ML to engage the user, instead of taking a “black box” approach?

5

Are you running on a powerful, extensible platform?

- ✓ Does the solution offer a full set of open APIs and platform capabilities, allowing developers to build new capabilities and extensions?
- ✓ Does the solution give you the ability to embed fully interactive analytics in your applications, allowing users to get insights wherever and however they work?
- ✓ Does the solution have an active partner ecosystem that drives innovation for AI-powered capabilities?
- ✓ Can the system integrate with third-party analytics engines in realtime, sending only small subsets of data for in-the-moment calculations as the user clicks, vs. expensive batch queries?
- ✓ Does the solution include a high-performance, purpose-built engine that responds at the speed of thought, even when challenged by a large number of users, massive data volumes, and unanticipated questions?

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Start Exploring

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