

QlikQ<sup>®</sup>

10

Ways to Transform

**Big Data** into **Big Value**



## **Big Data can produce a lot of value, but only if you know how to claim it.**

Big data is a big deal – more than half of enterprises globally view Big Data as an opportunity and plan to increase their investments in Big Data in the next few years.<sup>1</sup>

But Big Data's value doesn't come from the collection of information; that's just the starting point. The real value of Big Data comes from your ability to use that stored information

to uncover new insights, and then present those ideas to promote better business decisions.

And now, modern BI solutions can increase that value exponentially, by lowering the barrier to entry with user-friendly solutions. This allows more people within your organization – not just the data scientists – to access, analyze, and collaborate on your data.

---

<sup>1</sup> [https://www.dnvgl.com/Images/ViewPointReport\\_BigData2016\\_lowresRetEx-R\\_tcm8-61203.pdf](https://www.dnvgl.com/Images/ViewPointReport_BigData2016_lowresRetEx-R_tcm8-61203.pdf)



## How does making Big Data accessible to your team drive value?

- It provides your company with more detailed insights into key aspects of the various aspects of your business to drive better, more confident, data-driven decisions.
- It fosters a culture of curiosity, where people are encouraged to experiment with ideas and validate them through data analysis.

By making Big Data available to everyone, the next big idea that transforms your business can now come from anyone – not just data scientists.

**Wait – what is Big Data, anyway?**

Big Data is data that is too large or too complex for an organization to easily manage using standard database and software tools. But since every company has different capabilities and requirements, “Big Data” is a subjective term – what is “Big” to one organization may just be “Average” to another.



# Want to get more value from your Big Data investment?

## Here are 10 ways you can make a change:

1. Choose the right method for accessing Big Data.
2. Getting insight is as much about *relating* data as it is *collecting* it.
3. Give your entire organization access to Big Data.
4. Make it easy for users to find the data they need.
5. Drive collaboration to drive innovation.
6. Use an agile analytics environment that can meet the needs of every user.
7. Provide access to analytics solutions anywhere, on any device.
8. Implement a scalable solution that grows with your organization's changing needs.
9. Ensure your BI solution can easily adapt to future technologies.
10. Choose a BI solution with an extensive partner ecosystem.

# 1

## Choose the right method for accessing Big Data.

When it comes to how you access and analyze all of your data, there's no one-size-fits-all approach – different companies have different needs, different use cases, and different infrastructure configurations.

The method, or combination of methods, you choose will depend upon the specific user requirements you need to meet, weighed against the various tradeoffs you're willing to accept.

### Questions to consider when choosing a method for accessing your data.

How many rows of data will you need to support? Millions? Billions?

Will your data need to be accessible to non-technical users – or only IT and data specialists?

Will you run data analyses only on your entire data set – or would you like the ability to also analyze select segments of data?

Will you need to support a smooth, highly interactive experience for end-users?

Is flexibility or user performance most important to you?



# 2

## Getting insight is as much about *relating* data as it is *collecting* it.

Before, your biggest challenge may have been identifying and collecting the data you needed from a wide range of sources. Today, that part's easier than ever. Now, what really matters is whether you can gather and integrate all of this data together – no matter where it comes

from or how it's formatted – and discover all the possible connections within it.

To get the whole story, look for BI solutions that employ an associative model, which lets you explore all the connections within all your data. That way,

your users will always have access to a complete view of your business, so they can make better, more informed decisions.



**See the whole story with an associative model.**

Unlike traditional data models – which limit what data you can see, how that data should be connected, and what queries you can perform – an associative model identifies every relationship across all of your data. This allows every user – not just the data scientists – to quickly and easily explore data as they see fit, using interactive selections and keyword searches to uncover unexpected connections and insights.



# 3

## Give your entire organization access to Big Data.

When the idea of Big Data first emerged, its massive potential could be realized only by a select few – mostly data scientists and analysts. Non-specialists simply didn't have the knowledge, tools, or experience required to explore and use data in a meaningful way.

This is no longer the case. Now it's imperative that you put Big Data in the hands of your business users – those people who are closest to your business, who know what questions to ask, and who inherently understand which data-driven insights will have the greatest impact.

The right self-service BI solution can get you there, giving business users access to the data they need, while keeping data governance and management in the hands of your IT team. With self-service BI, business users can use interactive visual dashboards to freely explore their data and find answers to questions without relying on IT, improving business processes and encouraging innovation throughout your organization.

What's driving the shift toward self-service analytics?

In a recent report, Forbes Insights surveyed 449 senior IT and business professionals to find out why they decided to move to a self-service model:

**62%**  
wanted more open access to data.

**76%**  
wanted more timely analysis.

**71%**  
wanted better-quality data and analysis.

# 4

## Make it easy for users to find the data they need.

Business managers are increasingly expected to support their decision-making process with hard evidence. Unfortunately, these users are often inexperienced when it comes to finding the answers they need within a massive, ever-growing data repository.

To help business users find these answers – and get more ROI from Big Data – you need to make it easy for them to explore data.

You can do this by providing BI solutions that:



Allow users to intuitively dive into data as they see fit, without needing to rely on IT to run queries and generate reports.



Offer natural language search capabilities that make it easy to locate information.



Uncover connections and relationships across disparate sources of data – or even the unexpected ways data *isn't* related.



Visualize findings with clear and concise data visualizations.

**What is natural language search, and how can it help?**

With natural language search, users can perform queries using regular spoken language. This is extremely helpful for users who lack data expertise and may not know the technical terms needed to locate precise information within the database. BI solutions that include this feature empower more users (not just data scientists) to gain insights from their data.



# 5

## Drive collaboration to drive innovation.

What good is a great discovery if it can't be shared? If you can't share insights with your wider organization, you're missing out on the opportunity to collaborate, to expand on that initial idea and make it even better. Worse, the people who don't hear about your discovery may end up repeating similar data explorations, resulting in a loss of productivity.

But, it's not enough to simply *share* data – you have to share data *the right way*. Consider adopting an “enterprise-ready” BI solution – one that delivers both the freedom of self-service analytics (which allows every user to explore and share data as they see fit) and comprehensive governance capabilities (which control who has access to information, so everyone is working from a single source of truth).

With the right balance between self-service and governance, you can harness the collective wisdom of your entire organization, combining the expertise of multiple teams and individuals to spread new ideas, foster discussion, and drive innovation.

**Tip: Make sure your BI solution is properly governed.**

**Data governance ensures that access to analytics features and data are properly controlled and managed across your organization. Without the appropriate level of governance, errors, variations, and redundancies can occur, causing delays and disruptions as users struggle to verify the truth in the data. Proper governance helps you avoid these inconsistencies and ensures that everyone is getting their insights from the same trusted data.**

# 6

## Use an agile analytics environment that can meet the needs of every user.

Keeping pace with the deluge of new information that Big Data provides is no small challenge. This onslaught of data can make it difficult for business users to really dig in, explore, and get the answers they need in a timely manner.

To keep up, you should consider fostering an agile analytics environment, where your IT team can quickly and incrementally build upon

your BI solution to respond to the changing needs of business users. For instance, as users become more comfortable with data, you may want to progress them from guided analytics to self-service BI. This enables them to explore more of the data on their own and drill down into the details faster. With an agile framework, it's easy for you to enable such users, with no significant cost or development time.

**Big Data helps organizations take on big issues like the Zika virus.**

**See how Qlik and Cloudera used agile analytics to quickly deploy, ramp-up, and scale a solution to uncover new insights in the fight against the Zika virus.**

# 7

## Provide access to analytics solutions anywhere, on any device.

As the computing power of mobile phones, tablets, and laptops continues to increase, business is increasingly being conducted outside of the office. Whether on a train, at the airport, or in a client meeting, today's teams now expect to access their work no matter where business takes them.

To meet these expectations, you need the ability to deliver analytics solutions to your clients and users in a variety of formats – anywhere and everywhere, and with all the features they expect.

In addition to providing direct access to your analytics solution through a cloud-based or online

portal, another way to ensure anywhere access is to embed analytics within company applications using open APIs. By delivering powerful analytics within the context of your users' everyday workflow, you can ensure that everyone will always have access to the information they need, right when they need it.

**Embedding analytics to provide a seamless user experience.**

**Self-service BI has brought the power of analytics to the masses, but for some users, gaining access to additional applications can be a real challenge. That's why some products and organizations embed analytics directly into the familiar environments or applications that their users work with daily.**

# 8

## Implement a scalable solution that grows with your organization's changing needs.

As a rule, Big Data keeps getting only bigger. But no matter how much your data repository expands, your users expect a smooth experience without long wait times or interruptions. And most tools struggle to keep up as your data set grows.

To ensure that users can keep exploring data the way they want, adopt a BI platform that

scales with your needs, delivering superior performance even as data volumes grow and apps become more complex. This platform should employ multiple tools and methodologies so that you can maintain an interactive, dynamic experience for end-users, no matter how much data you accrue.

Also, look for a BI solution that performs calculations on-the-fly

using *in-memory processing*. These solutions can process and respond to questions at the “speed of thought,” allowing users to keep digging and exploring, without having to wait for the platform to catch up. This in turn can help foster a more prominent culture of curiosity and exploration within your organization at large.

**What is in-memory processing, and how can it help?**

**In-memory is a data processing technique that temporarily stores and calculates information in Random Access Memory (RAM) rather than extracting data from disk storage every time the user makes a new selection or calculation. Data can be read and analyzed much faster in RAM, resulting in faster reporting (and decision-making) than with a more traditional approach.**

# 9

## Ensure your BI solution can easily adapt to future technologies.

The technology to manage and explore Big Data is rapidly changing, providing better and faster solutions to gain insights from your data. But integrating the latest technologies into existing analytics platforms can be challenging – sometimes impossible.

You should ensure that your analytics solution can quickly and easily integrate with new technologies.

For example, open APIs can make introducing new capabilities to your existing solution as simple as adding a few lines of code. Having an online community that's focused on custom development is also important. There, developers can help you stay current, and relevant, by easily collaborating with others to ensure that your product or solution keeps pace with the latest advances in technology.

### What are open APIs?

**An open API is a publicly available interface that developers can use to integrate third-party solutions into their own solution. Essentially, open APIs govern how two different applications can easily communicate and interact with each other. BI solutions that offer open APIs allow businesses to easily plug in to multiple solutions to perform specific functions that no standalone solution could do by itself.**

# 10

## Choose a BI solution with an extensive partner ecosystem.

When it comes to Big Data, sometimes you need a little extra help to see the whole story. When choosing a BI solution, look for vendors that maintain a large and diverse range of technology partnerships. This will help streamline data interaction, ensuring that all of your BI solutions work together efficiently and effectively. Plus, with enough partners at your disposal, you'll always have the right solution for your business needs – now and in the future.

### What types of technology partners could you use?

#### **Data Storage and Management Solution Providers**

store and query your data, as well as provide the infrastructure needed to run your analytics solutions.

#### **Data Wrangling Solution Providers**

refine and reshape raw data into usable data sets.

#### **Machine Learning Solution Providers**

automate analytical model building by using algorithms that iteratively learn from data.





# Big Data, big potential.

Big Data has the potential to transform your business, but to unlock its true power, you need to know how to fully use it. The right BI solution can help maximize your Big Data ROI by:



Providing a complete view of your business and the external forces that impact it.



Facilitating better, data-driven decisions in every area of your business.



Letting more users access and explore data, from anywhere, at any time.



Fostering a culture of collaboration, inquiry, and innovation across your entire organization.



Scaling as your business grows, to meet future needs.

# Your first big step toward Big Data mastery.

Named a BI Leader in Gartner's Magic Quadrant for seven years running, Qlik offers a complete portfolio of visual analytics solutions that help businesses get the most out of their Big Data investment.

Qlik's enterprise-ready platform is backed by the power of its unique associative model, which allows teams to freely explore *every* connection, across *all* of their data, at the speed of thought. Users (including non-data-scientists) can quickly and easily delve into massive amounts of data, from multiple sources, as they follow their own path to insight.

## [Learn more about Qlik's associative model](#)

Plus, with unmatched self-service and governance capabilities, Qlik helps IT teams finally give users the insights they need – without hassles or limitations.

Over 40,000 customers rely on Qlik to unlock the hidden connections in their data, leading to smarter insights, more confident decisions, and ultimately, greater value for their business.

Ready to find answers to your company's most important questions? **Try Qlik for free today.**





See the whole story that lives within your data.

[qlik.com/bigdata](https://qlik.com/bigdata)

---

©2018 QlikTech International AB. All rights reserved. Qlik®, Qlik Sense®, QlikView®, QlikTech®, Qlik Cloud®, Qlik DataMarket®, Qlik Analytics Platform®, Qlik NPrinting®, Qlik Connectors®, Qlik GeoAnalytics®, Associative Difference® and the QlikTech logos are trademarks of QlikTech International AB which have been registered in multiple countries. Other marks and logos mentioned herein are trademarks or registered trademarks of their respective owners.

*Gartner does not endorse any vendor, product or service depicted in its research publications, and does not advise technology users to select only those vendors with the highest ratings or other designation. Gartner research publications consist of the opinions of Gartner's research organization and should not be construed as statements of fact. Gartner disclaims all warranties, expressed or implied, with respect to this research, including any warranties of merchantability or fitness for a particular purpose.*