KNOW YOUR DATA FORWARD, BACKWARD, AND SIDEWAYS.

The 2015 business analyst's guide to big data analytics.

platfora®

Want to know more?

If there's one thing a business analyst can be sure of, it's that the questions will keep coming. Everyone from the chief executive to sales to PR is hooked on insights from data, and when business analysts come up with the answers—quickly—they become stars.

Businesses are gathering more data than ever before, and everyone wants to know what it means and how it can drive change. But digging into this data has become a major technology headache. Even with an IT army behind the business analyst, it's a hard slog to get to even 10 percent of available data. And then it can take weeks to crunch the data and deliver insights. These headaches add to the pressure felt by analysts to come up with answers to their questions—or to questions put to them by the executive team.

Hadoop has made it easy and cost-effective to store all kinds of multistructured data, such as transactions, customer interactions, and machine data. Instead of business analysts being forced to wait for updates to databases to attempt analysis—and then wait some more—Hadoop allows all data to be at an analyst's fingertips, all the time, with no waiting.

However, with such a complex storehouse, how do you decide what data to study, and how do you get results quickly? The answer: big data analytics that are radically different from what you're probably using right now.

In this eBook, you'll learn how big data analysis has been radically changing, and how businesses are transforming the way they view and act on data. You'll also learn about new tools you can use to uncover the intelligence within data.

The #1 native big data analytics native platform for Hadoop

"As exciting as it is to be an analyst sitting on a wealth of valuable data, it can be just as frustrating to know that critical insights are out of your reach. Changing the way you work and obtaining data is key not only to improving your workflow, but also to ensuring that your organization can fully capitalize on its big data assets."

–CITO Research

Today's five biggest big data challenges

With more data being created than ever before, everyone who works with big data struggles to simply make sense of it. What's standing between you and making sense of your data?

(1) **Access:** Think of the data you can regularly access as the tip of the iceberg. The tip is that 10 percent of data that companies can typically analyze—leaving 90 percent, or the rest of the iceberg, trapped below the waterline. It can take weeks or months for business analysts and data scientists to explore data below that waterline, if they can even get to it.

To get to the 90 percent of the data they're not using, business analysts have to call on help from IT departments and data scientists, putting another barrier between analysts and answers.

(2) **Speed:** Data analysis is lagging behind the speed of business. Extracting meaning from data comes at the expense of speed —and gets in the way of the "always asking questions" mindset of the successful business analyst. Workflows are usually time-consuming, and data cleansing and prep slow down answers even more—yet the C-suite demands answers yesterday.

(3) **Independence:** As a business analyst, it's your job to be the company know-it-all. But your ability to run with a line of questioning, or to get creative with many different data sets, is hamstrung by reliance on other people. IT staffers and data scientists must be enlisted, and you're at the mercy of their schedules. Business analysts are also dependent on the technology that IT is using, which might or might not be well suited to today's big data needs.

(4) **Innovation:** Big data helps unlock business ideas that can drive competitive advantage, but if the vast majority of data can't be accessed or resides in silos, then business analysts can't get a 360-degree view on data or obtain rich, precise answers to their questions. Analysts have to spend too much of their valuable time identifying requirements, waiting for solutions, and often finding out that what has been delivered still won't meet their needs. They are unable to put their business expertise to use to focus on what is most important: business insights.

(5) **Insights:** A key driver of innovation is the ability to find insights or patterns of behaviors across historically siloed data sets. Often the most useful insights come from exploring data, which means you don't always know the questions you want to ask. In an ideal world, you want to explore data in an agile way that allows you to quickly pull in new data as you pivot your analysis based on fresh discoveries.

More than half...

...of organizations using big data analytics have to break big data into smaller pieces just to work with it.

This progress requires significant investment in data preparation which slows down time to insight.

ANALYSTS
ACCESS ONLY
10%
OF ALL THE DATA

AND WAIT
DAYS TO WEEKS
FOR DATA ADMINS
TO PREPARE
THE DATA

Solving big data challenges
The new workflow

Fortunately for business analysts, the way you work is changing for the better, and these changes are going a long way toward eliminating your biggest data headaches.

You need to access and analyze data from many different sources...

### Accessing and analyzing all data
In the old way of working, your data was stored in ways that were dictated by data architects. If you needed to request answers from a different set of data, you had to create a separate request for your (overworked) data architect—then wait (a long time) for answers. Now you can access and examine data from many different sources —including data sets that didn't used to be analyzed in tandem such as weblogs and sales data.

Using easy-to-understand visualizations
Finding answers was one thing. Communicating to other teams how you got your answers was a whole different challenge. Now you can show off your answers and insights with visually compelling presentations.

BUSINESS ANALYST DATA SCIENTIST IT C-SUITE

platfora®

HADOOP
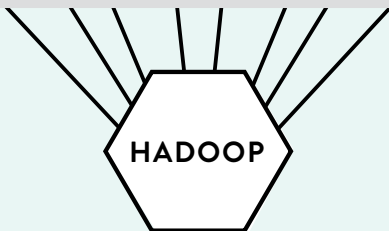
...your data needs to be accessible by everyone in the organization...
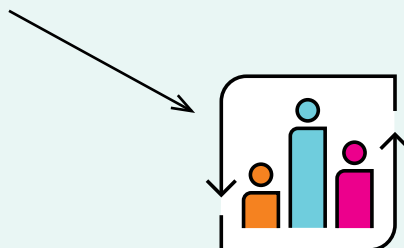
...and your organization needs to become data driven.

Making one-off requests

You used to have to wait, and wait some more, as you iterated on your data questions, since data architects had to treat each request as a new assignment. Now your data architects have to pull your data only once, and you get to change the scope and view of the data as you need to. Gone are the days when you had to imagine every question that you could ever want to ask, in advance.

Asking new questions

In tandem with easy-to-understand visualizations, you can now weave in new ways to iterate questions and drill down on data. You no longer have to wait three to six months to ask new questions. By drilling down into data using visualizations, you can surface data for executives in a way that makes it easy for them to glean insights.

Sharing data sets

Analysts can share existing data sets, so you don't need to keep creating new objects. You can work on these data sets with your analyst colleagues as well as with data scientists, without disrupting each other's work. You can also collaborate and comment on each other's data sets, helping to improve understanding of data scientists' work.

Understanding how new data changes the insights—automatically

You don't need to keep asking new questions because you think new data might have turned up and changed the insights. Now you can set up data to refresh on demand based on any triggers you need, such as certain time intervals or whenever new data is dumped into Hadoop. You can also be proactively notified when data meets certain conditions.

Liberating the business analyst

How analysis will become faster, smarter, and easier.

When your workflow changes for the better, it's not just that the process lets you ask more questions and get better answers. It's a wholesale change in how your organization views data, and the power that it has to deliver insights you could never uncover before. Here's how your job will change, and why it's good for the entire business.

Creating a data-driven DNA for your business

When more people can ask more questions about more data and get more insights, your business is on its way to changing its DNA. Anyone who needs access to information should be able to get it, share it, and use it to make better decisions—without anything standing in their way.

As part of building data into your business DNA, your organization will also be more likely to broaden responsibility for big data. Just as data used to be siloed, so did ownership of big data. The data scientists and business analysts focused on leveraging the tools, while the executive team focused on asking specific questions (but only the ones they could ask based on seeing only 10 percent of their data).

Along with DNA, better access to data and faster, easier workflows can help bring about a change of culture in how your corporate leaders view data. Executives can begin partnering with analysts at the start of a project to make sure that they can review what to improve and what they're doing right. They can use that data to shift strategies when necessary, and to amplify successes when and where they're winning.

When your leaders support the integration of big data into every part of the business, your job as a business analyst becomes more crucial. However, to get buy-in from leadership in your organization, the CIO and the CTO need to see that investment in new data analysis tools pays off.
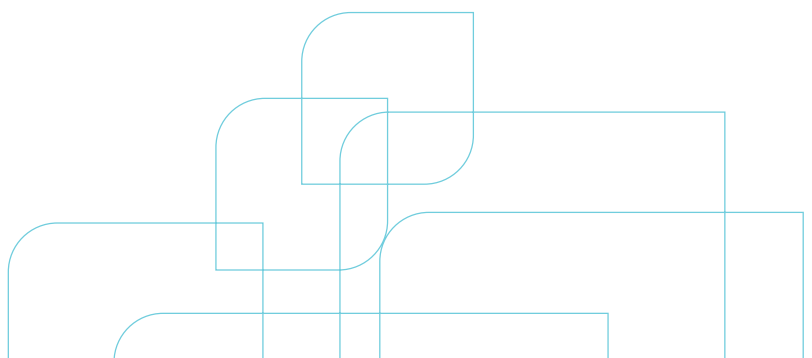
How to create a data-driven culture?
Start an insights team.

Video game publisher Riot Games is on a mission to become the most player-focused games company in the world.

"If we're going to put the player experience first, we need qualitative and quantitative data," explains Chris Kudelka, data engineer at Riot Games. *"We need to teach everyone to ask the right questions before we release games and features."*

Toward that end, Riot Games created a 50-employee Insights team—made up of data scientists, business analysts, and IT professionals—to field questions across product teams.

"We're cultivating the idea that everything we do should be informed by data," says Kudelka.

The Insight team also hosts monthly lunch sessions, called "Lunch and Learns" or "Lightning Talks," during which the data geniuses talk about what they've learned about the Riot Games player base, and how that information helps the whole company.

The evolution of big data architecture

Data has come a long way from the days of the abacus.

Changes in how data is architected are now letting you ask all the big questions you want and get answers in record time.

1980s: Data warehousing

Because of upfront requirements, only 10 percent of a company's data would go through an extract, transform, and load (ETL) process—and only then could you apply business intelligence (BI) tools to figure out answers to your questions. It took a village to submit questions and get answers in anywhere from three to six months.
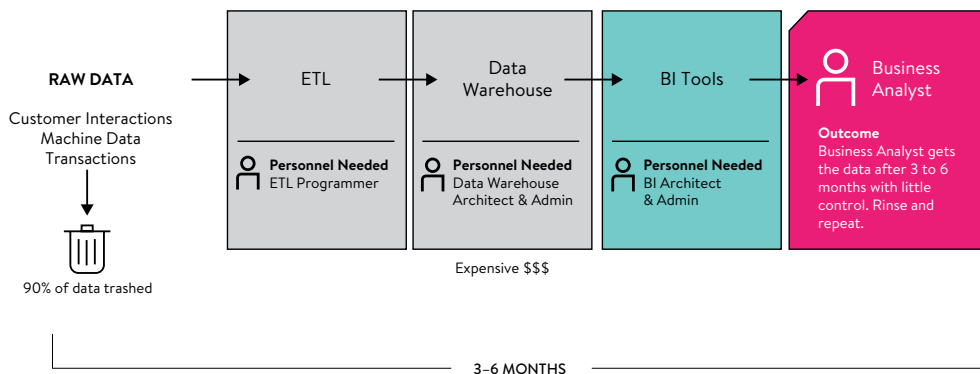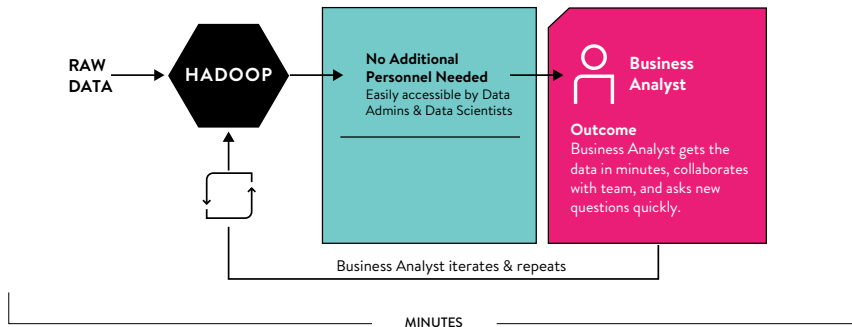

2011: Hadoop changes data storage for the better

The launch of Hadoop allows companies to collect all of their data regardless of size or form. But problems of access and time still exist. Business analysts and data scientists still need to use tools such as Pig, Hive, and MapReduce to perform SQL on Hadoop. The workflow is still complex and time-consuming.
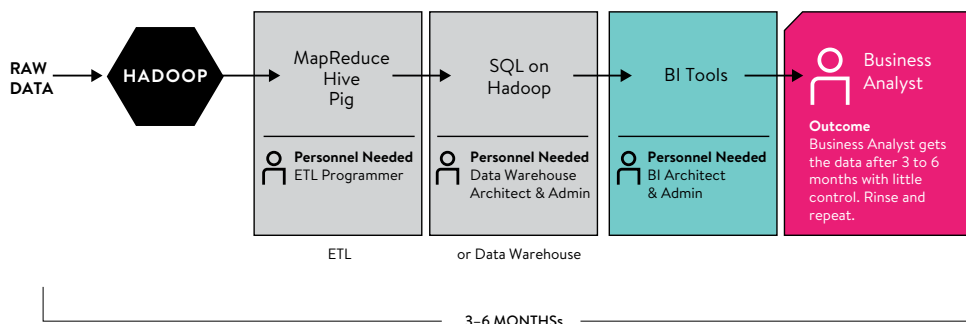
Today: No coding, No data prep

End-to-end platforms solve the problems of accessing and analyzing raw data, without requiring an army. By eliminating data extraction steps, the need for BI tools, and associated staff, business analysts can go straight to the answers.

RAW DATA → HADOOP → **No Additional Personnel Needed** Easily accessible by Data Admins & Data Scientists → **Business Analyst**

Outcome
Business Analyst gets the data in minutes, collaborates with team, and asks new questions quickly.

Business Analyst iterates & repeats

MINUTES

Your new data team: insights for everyone

Instead of being dependent on other people to ask questions and get answers, you can do it single-handedly. But the newer, freer ways of looking at big data can also help you assemble a stronger team of people who can help you find the answers you need without slowing things down—and give more people in the business a deeper view into data.

Here's how big data analytics can help build a collaborative team.

CIOs, CTOs, and CDOs
Executives can now make decisions based on data from every touch point, including web access logs, mobile apps, and sensors.

Business Analysts (i.e., you)
They gain more power and flexibility to get answers to questions posed from anywhere in the business. They can see data raw, or create visualizations so they can share data with other people—all without relying on IT or consultants for deep knowledge of MapReduce or Hive.

Data Scientists
They can write transformations in Scala, Python, or Java and leverage SQL. Their work is immediately accessible to anyone in the organization, which makes their work valuable and gives them more time to do the jobs they were hired to do.

IT Professionals
IT teams no longer need to worry about the volume, variety, and velocity of data coming into the business. They can make sure everyone who needs access to data gets it, and feel confident that all of their data is secure.

Choose the right big data platform

Modern data architecture requires flexible tools for digging into data.
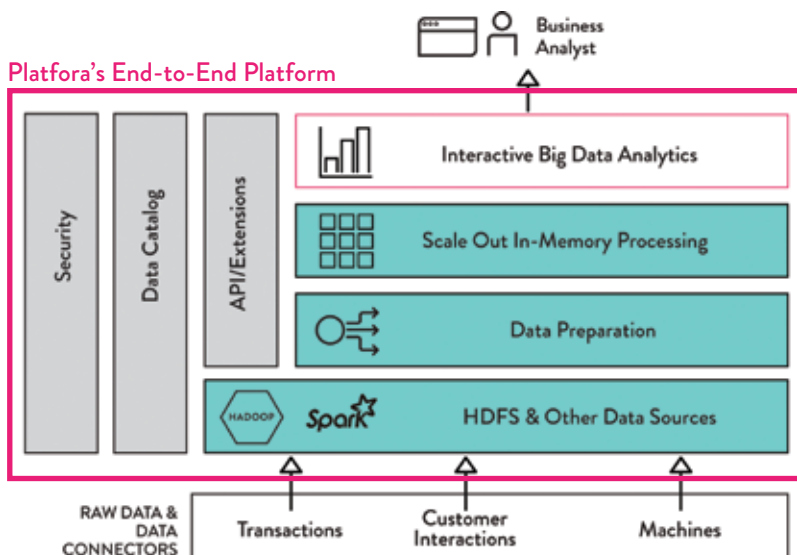
Now that you're ready to reap the benefits of new ways to look at big data, you need a trouble-free way to get to that data.

Here's Your List of Must-Haves:

- ☑ The ability to gain insights from multistructured data
- ☑ Tools that show you all of your data, not just the tip of the iceberg
- ☑ Freedom from IT—ask the questions you want, when you want
- ☑ Iterating questions as much as you want

- ☑ Fast answers, no matter how much data you have on hand
- ☑ Access to big data for everyone, not just the people with "scientist" in their job title
- ☑ Tools built natively for Hadoop, so you can make the most of your data

The Only Platform with an End-to-End Architecture

Platfora built its platform so that business analysts can extract meaning from growing volumes and varieties of data, especially the data that's often inaccessible. Platfora lets analysts ask the questions that matter most to their business, such as looking for patterns of behavior or potential new business opportunities. Because questions don't require IT assistance or coding, analysts can query and iterate as much as they need and want to.

Platfora's End-to-End Platform

Business Analyst

- Security
- Data Catalog
- API/Extensions
- Interactive Big Data Analytics
- Scale Out In-Memory Processing
- Data Preparation
- HADOOP | Spark | HDFS & Other Data Sources

RAW DATA & DATA CONNECTORS — Transactions | Customer Interactions | Machines

Analytics on steroids

It's your job to be a know-it-all, and nothing supports you better than Platfora. Dig in to all the data that's at your disposal—transactions, customer interactions, and machine data—so you can see patterns between events, actions, behaviors, results, and time. Platfora brings insights to each stage of the customer lifecycle through dynamic segmentation, event series analytics, and advanced analytics workflow.

What's your next step?

It's an exciting time to be you: Companies know that gleaning answers from data is critical to success, which means business analysts can help lead the charge toward business innovation. Ask for a demo from Platfora to find out more about the tools that let you ask questions about anything your business needs.

www.platfora.com

The Platfora Big Data
Analytics platform was
purpose-built to help
business analysts get even
more insights and answers
from their organization's
data, and in turn, make
their customers happier,
help their organization be
more efficient, and keep
the competition in the
rearview mirror.

ABOUT PLATFORA

Platfora is the #1 Big Data Analytics platform built natively on Hadoop and Spark. Platfora enables business users and data scientists to visually interact with petabyte-scale data in seconds, allowing them to work with even the rawest forms of transaction, customer interaction, and machine data to find new opportunities and manage risk. Platfora is transforming the way businesses unlock insights, make decisions, and produce better outcomes through the use of its industry-defining Customer Analytics, Security Analytics, and Internet of Things solutions. Platfora Big Data Analytics is creating data-driven competitive advantages for leading organizations such as Citi, Sears, AutoTrader, Disney, Edmunds.com, Opower, Riot Games, Vivint, and TUI Travel. Learn more about Platfora, read our blog or follow @platfora #YouShouldKnow.

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