



Most organizations recognize the promise of data as a transformational decision-making tool, but far fewer are realizing the benefits of big data analytics. What's holding them back?

Big Data Versus Smart Data

Accelerate your time to insight and innovation



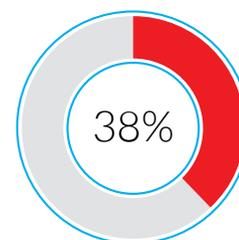
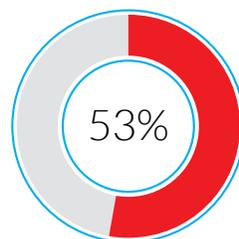
The price of light is less than the cost of darkness.”¹

ARTHUR C. NIELSEN

FOUNDER, GLOBAL MEASUREMENT AND DATA ANALYTICS COMPANY, NIELSEN

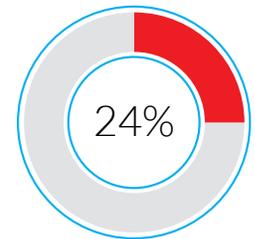
According to a survey conducted by the Business Application Research Center, only 6 percent of surveyed companies report no roadblocks to using big data.² The rest—companies around the globe and across different industries—identify various barriers. Up to 53 percent of the survey respondents say inadequate technical or analytical know-how within their organisations is slowing adoption.³ Among 38 percent of companies, the lack of compelling business case or cost are issues.⁴ And nearly one-quarter struggle to make big data digestible for end users.⁵ Overcoming these obstacles will help organisations forge a path to improved performance and growth.

Inadequate technical or analytical know-how



Lack of compelling business case or cost issues

Difficulties making data digestible for end users



The 5 Vs of Big Data

Why is working with big data so difficult? It comes down to several factors, which research and advisory leader Gartner first introduced as the Vs of big data in 2001. The five most commonly defined Vs highlight both the biggest challenges—and the opportunities—tied to big data.



VOLUME

The sheer amount of data generated every second is mind-boggling. Technology expert and author of *Data Strategy* Bernard Marr notes, “There are 2.5 quintillion bytes of data created each day at our current pace, but that pace is only accelerating with the growth of the Internet of Things (IoT).”⁶ He points out that 90 percent of data globally has been generated in just the last two years. Given perpetually increasing volume of data available, identifying the data your organisation needs is akin to searching for a needle in a haystack.



VARIETY

As data volume has risen, so has the variety of data types available. Years ago, organisations focused on structured data—a type that fits neatly into tables and relational databases. But these days, 80 percent of the world’s data is unstructured, making it more difficult to harness the data without big data technology.⁷ Tapping into alternative data sources, such as text or multimedia, represents a huge advantage, however. Consider the potential value of unstructured data found in social commentary to inform marketing plans or sensor data from a production line to optimise operations.



VELOCITY

The speed at which data is generated and moves around is also a challenge. If a tweet can go viral in minutes, how can organisations hope to unlock insights in the moment? Big data technology supports rapid analysis, making adoption of predictive analytics or machine learning more important than ever if organisations want to realise competitive advantages from data in real time.



VERACITY

Volume, variety and velocity combine to create another challenge for organisations trying to leverage data effectively. Quality and accuracy are difficult to control. Much of the data being generated every day is messy. Typos, colloquialisms and abbreviations, for instance, make it nearly impossible to extract insights. But advanced analytics like semantic analysis, entity linking, applied metadata or other data enrichments, along with data normalisation, makes it possible to tap into data from a wide range of sources—news, company and industry data, regulatory and legal information and more.



VALUE

Turning data into value is perhaps the greatest challenge that organisations face. Embarking on a big data initiative without a clear understanding of the business value it will bring puts organisations on the fast track to failure. An estimated 85 percent of big data projects fail and TechRepublic contends this abysmal failure rate is due to “... the difficulty of grafting modern big data practices onto existing infrastructure and into company cultures that are ill-prepared to embrace big data.”⁸ But when organisations embark on big data initiatives to answer a clear question, they can turn data into measurable value—from optimising processes and improving customer service to predicting risk and identifying emerging opportunities.

Using Data as a Service to Address the 5 Vs

Without a strategic approach to leveraging data, organisations may see their big data dreams crushed under the weight of data volume, variety, velocity and veracity—which makes achieving value nearly impossible. Smart data, delivered as a service, helps organisations manage the 5 Vs more effectively.

What qualifies as smart data?

Industry experts divide smart data into two types:⁹

Smart sensor data captured and acted upon before going into an analytics platform—This includes a broad range of Internet of Things (IoT) sensors—from health-related devices like continuous-loop glucose meters to industrial IoT systems that capture data along the entire production line.

Smart data evolved from big data that has been screened, normalised and enriched—This process reduces the volume, addressing the problem of data overload that many organisations grapple with.

The second type of smart data delivers benefits beyond volume reduction, because as the volume declines, velocity, veracity and value should increase. And it is here where data as a service can benefit organisations seeking to achieve measurable results from big data initiatives.

Daniel Newman, principal analyst of Futurum Research and CEO of Broadsuite Media Group, notes that seeking data from outside the organisation is crucial to big data success. He argues that Data as a

Service companies approach data with specific focus, aggregating data and organising it to make it more usable. Newman says, “This essentially eliminates the need for in-house commitment to data and allows businesses to perform with greater agility, because they can seamlessly and effortlessly get the exact data they need.”¹¹

Other ways that Data as a Service empowers value extraction from data include:

Reducing volume and improving quality of data feeds—Data enrichments applied by Data as a Service providers allow organisations to filter data for more relevant datasets.

Saving time spent wrangling data—Data as a Service providers often normalise the data, delivering it in semi-structured, XML-based feeds that more easily integrate into business intelligence applications and bespoke big data initiatives.

Accelerating the time to insight—Because data scientists spend less time on cleaning and organizing data, they have more time to devote to application development, testing and analysis.



Almost every modern business has embraced data as a decision-making tool, but few companies have the in-house manpower and resources to fully leverage the power of the data they collect.”¹⁰

DANIEL NEWMAN

PRINCIPAL ANALYST, FUTURUM RESEARCH
AND CEO, BROADSUITE MEDIA GROUP

Smart data empowers organizations to overcome the deficiencies that hamper big data projects. It frees up limited resources, enabling users to focus on data integration and analysis, instead of getting bogged down in data wrangling. **How can smart data help your organisation realise the transformational potential of big data?**



We Can Help

Nexis® Data as a Service addresses the challenges of the five Vs of big data with its **CORE advantage**:

- **Comprehensive**—A source universe offering controlled **volume** and a wide **variety** of datasets to meet diverse uses
- **Optimal**—Flexible Bulk, RESTful and controlled content APIs deliver normalised, semi-structured data at the **volume** and **velocity** needed for big data applications
- **Robust**—Smart data, organised and enriched through a combination of expert human curation, advanced analytics and topic tags, for greater **veracity**
- **Experienced**—A partner with 45+ years of aggregating content, plus patents in clustering and machine learning, for dependable **value**

About LexisNexis®

After 45+ years providing solutions that help organisations harness the power of information, LexisNexis remains dedicated to developing innovative tools to support data-driven decision-making. Our commitment extends beyond comprehensive content and outstanding search technology to world-class client service support, ensuring that our clients gain maximum insights and value from LexisNexis solutions.

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