



DEFINING THE NEW BUSINESS  
INTELLIGENCE:  
VISUAL, IMMEDIATE AND COGNITIVE

Stratecast

F R O S T  S U L L I V A N

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## INTRODUCTION<sup>1</sup>

A hot topic in today’s business environment is big data; managing and monetizing the massive expansion of data accessible to decision makers. Yet, for most companies, big data is a given. The big question now is: how does a company apply all the available data in order to increase revenue, increase efficiency, and improve decision-making? Traditionally, the answer to this question has been business intelligence (BI).

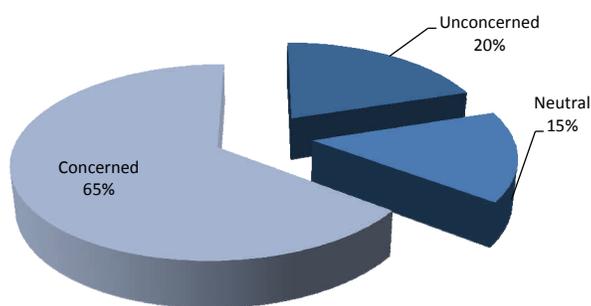
BI has been evolving for decades, and what used to be a capability available only to senior management is now being applied at all levels of the company; providing the self-service capability to access, query and display data to support decisions at every level of the organization. However, traditional BI has not kept up with either the need to handle the massive amounts of data now available, or, more importantly, the needs of decision makers for quick, actionable information.

Decision makers no longer have the time to wait for traditional BI, with its dependence on production analytics and spreadsheets. Information needs to be immediate, available to the user without IT intervention, and highly visual. It needs to enable smarter self-service, thereby empowering users at all levels of the organization with mechanisms for thinking and guiding. This calls for a new type of analytics solution.

## BI OVERHEAD: ENABLING DECISION MAKING, BUT AT WHAT COST?

Big data is overwhelming traditional analytics. According to IBM estimates, over 2.5 quintillion bytes of data are generated globally every day, much of which is available to inform business decisions. This dynamic is of great concern to businesses: Stratecast surveys indicate that business decision makers (those who use or manage big data applications and technology) are increasingly afraid that they have no effective way to utilize all of the data available to their companies. It will have overwhelmed traditional tools and thinking.

**We have too much data and not enough knowledge of what to do with it**



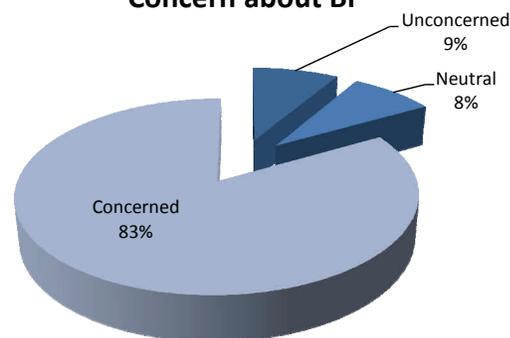
Rather than helping solve this situation of too much data, traditional BI is simply exacerbating the problem. BI that is effectively a batch process, which delivers production reports on a schedule set by IT, is no longer

responsive enough to service an increasing number of users at all levels of the organization. Increasingly, BI needs to be available quickly—enabling ad hoc inquiries—and, more importantly, visualization driven.

Recent Stratecast surveys bear out the businesses’ high expectations for BI. Eighty-two percent of those business leaders surveyed identify improving the quality of decisions as the primary benefit of BI; yet, 83% are also concerned about the quality of the information they obtain from BI solutions.

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**Concern about BI**



<sup>1</sup> This analysis represents the opinions of Stratecast and not IBM company executives.

It is clear that traditional approaches to business intelligence are not resonating. More than half of those surveyed also identify visualization as one of the most important benefits of effective business intelligence solutions. Most of these decision makers would prefer BI that ‘smarts’ with self-service, rather than be always dependent upon business analysts. Traditional data discovery tools have responded to the business users need for fast analytics with great visuals; but they lack the capability to address enterprise governance and scalability requirements. A ‘modern BI’ platform addresses this need for guided and intuitive self-service, as well as mission-critical reporting based on curated data.

Ensuring smarter self-service capabilities depends on establishing a trusted set of data sources—a task that is not easy to accomplish. When Stratecast surveys indicate that as much as 60% of a business analyst’s time is spent simply cleansing data and formatting it for presentation, it is clear that a major investment of traditional business intelligence is devoted to data curation and display. And such preparation is critical because, in a self-service environment, it is easy to create bad analytics that lead to bad decisions. Traditional BI solutions do not address the need for effective data curation, nor do they document the cost to the business of not effectively managing data.

Flawed or inconsistent data can lead to flawed analytics; and few companies consider the cost of bad analytics in an organizational context. If two different decision makers reach different conclusions based on disparate or incorrect data, valuable time and organizational resources can be consumed reconciling the analysis. And time is a resource that companies can ill afford to waste in today’s fast paced markets.

What is needed is a new approach that addresses the need of business for a powerful graphic visualization-driven BI solution; one that enables flexible, cost-effective data curation and management, and that provides a guided and intuitive interface that facilitates a smart self-service environment.

## THE NEW BI

A new approach to business intelligence must not only enable cost-effective data collection and curation, as well as powerful analytics; it must also be highly visual and easy to use, intuitive and guided, so that all decision makers can access and use it effectively.

Visualization, in particular, is important. Fred R. Bernard once noted that a picture is worth a thousand words; however, a picture that enables an important decision can be worth far more than that: it can mean the difference between a company’s success and failure. However, graphics are hard to do well.

As noted above, data curation and presentation development can consume 60% of a business analyst’s time. However, few actually have the skills to develop compelling visual representations of data; and when this task is distributed to all levels of the company in a BI self-service environment, the overhead can be considerable. As a result, visualizations are rarely produced quickly, and are usually static; and this can be a problem. What happens when the data change?

It is clear that a new BI must automate the data preparation, display, and distribution process as well as be:

- **Interactive:** As noted above, tools that are static or which cannot support “what ifs” tend to slow down business decision-making. Interaction, though, is only part of the equation: tools must also be easy to use. They require graduated and guided interfaces that enable non-technical business users to extract meaningful information from complex data sets.

- **Intelligent:** Tools that are complex and that require extensive training to master have limited the growth of self-service, and have led to the proliferation of desktop data discovery tools. What is required are tools with built-in intelligence that can be tailored to all users, from casual to power users.
- **Dynamic:** Tools that are static and that present data in ways that are hard to modify simply can't keep up with today's fast moving business environment. Graphs and report generation must be interactive, allowing decision makers to interact with the data, drilling up or down, and modifying report parameters so that they can quickly obtain the information they need.

A company that has moved to address these needs is IBM, with its wide portfolio of analytical solutions.

## IBM DELIVERS SMART BUSINESS INTELLIGENCE

While there are many business intelligence tools on the market, there are very few which enable rapid analysis as well as near real time visualization: IBM Cognos Analytics enables both. IBM is not new to the analytics game,

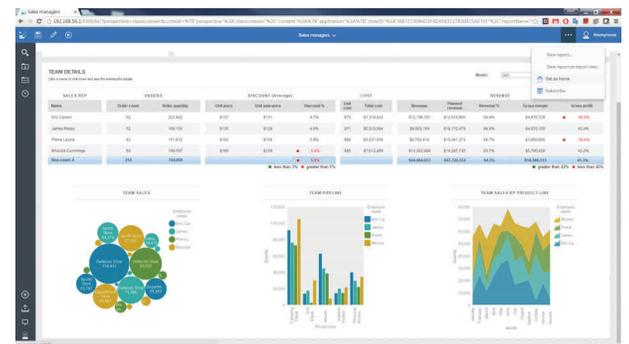
having focused on business intelligence solutions for decades. Its Watson-based analytic solutions are also at the very cutting edge of the cognitive space. However, IBM has also augmented the capabilities of its existing offerings.

IBM Cognos Analytics now benefits from IBM's Rapidly Adaptive Visualization Engine, version 2 (RAVE2) technology. RAVE2 provides market-leading visualization capabilities, enabling a whole new level of data representation; empowering even decision makers who may be new to data analysis. The enhancements to



the visualization capabilities that RAVE2 brings to both Cognos Analytics and Watson Analytics are focused on delivering a consistent set of capabilities across dashboarding and reporting. In particular, RAVE2 delivers improved visualization that includes such features as drillable heat maps, pan and zoom capabilities, and supports D3 compatible engines. It also will support the latest innovations in geospatial analytic capabilities, with resolution down to the zip code level.

With its recent partnership with Datawatch, IBM delivers an



enhanced data preparation capability with the Monarch product. Monarch helps business users unlock data from a wide variety of unstructured and structured data sources, and prepare it for use in visualization and analytics tools. Datawatch is best known for its capability to unlock data in multi-structured sources like reports; and, armed with pre-defined, standardized reports, users can automatically extract all the available data into an analytics-ready data set. This capability, in particular, allows business to overcome one of the biggest barriers to the use of big data and analytics: data preparation and curation. More importantly, IBM Cognos Analytics, armed with Monarch, simplifies the integration of data, both external and internal-to-the-company.



IBM Cognos Analytics provides a complete Web-enabled experience that can be accessed anywhere—office or mobile. It enables the creation of reports that can be linked to update automatically, as new data becomes available. And, because it centralizes access to trusted data, it improves governance and security of the analytics process, ensuring consistency between departments and management levels. In addition, Cognos Analytics is easy to learn, and you can create a dashboard in minutes. With an interface that is graduated and guided, it enables business users to extract meaningful information from complex data sets, making virtually everyone a knowledge worker.

## LAST WORD

Big data, for all of its virtues, has had one deleterious effect on business: it has strained traditional approaches for extracting business intelligence from available data sources. Now, the question is not: how much data can I get? It is: how can I manage all of the data I have available? The answer is: smarter business intelligence—but not traditional BI, with its dependence on central processing and dedicated business analysts.

The new BI must enable a more collaborative analytical capability, where everyone is now a knowledge worker, and where analysis is often conducted by the decision makers that actually use the information that is derived from the data. Yet, this new BI must enable quick understanding and ease of use. It must be highly visual, producing dynamic visualizations that change as the data change. It must guide the neophyte user through the analytic and presentation process.

IBM's Smart BI solution delivers on this new BI vision. IBM Cognos Analytics, with its enhanced visualization capabilities and support for a wide spectrum of data curation options, can help organizations to deliver visual, immediate and accurate information, empowering decision makers at every level of the company.

Organizations that are leading in their markets today are using analytics to drive decisions at all levels. To harness the wealth of information that big data represents, a new BI solution is required: one that combines managed self-service with mission-critical reporting. This new approach to BI is essential to overcoming the challenges that having too much data can pose. IBM's Smart BI solution helps organizations stay ahead of the market.

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