

Inaugural Keynote Address
Business Intelligence Conference
Nov 19, 2011, New Delhi

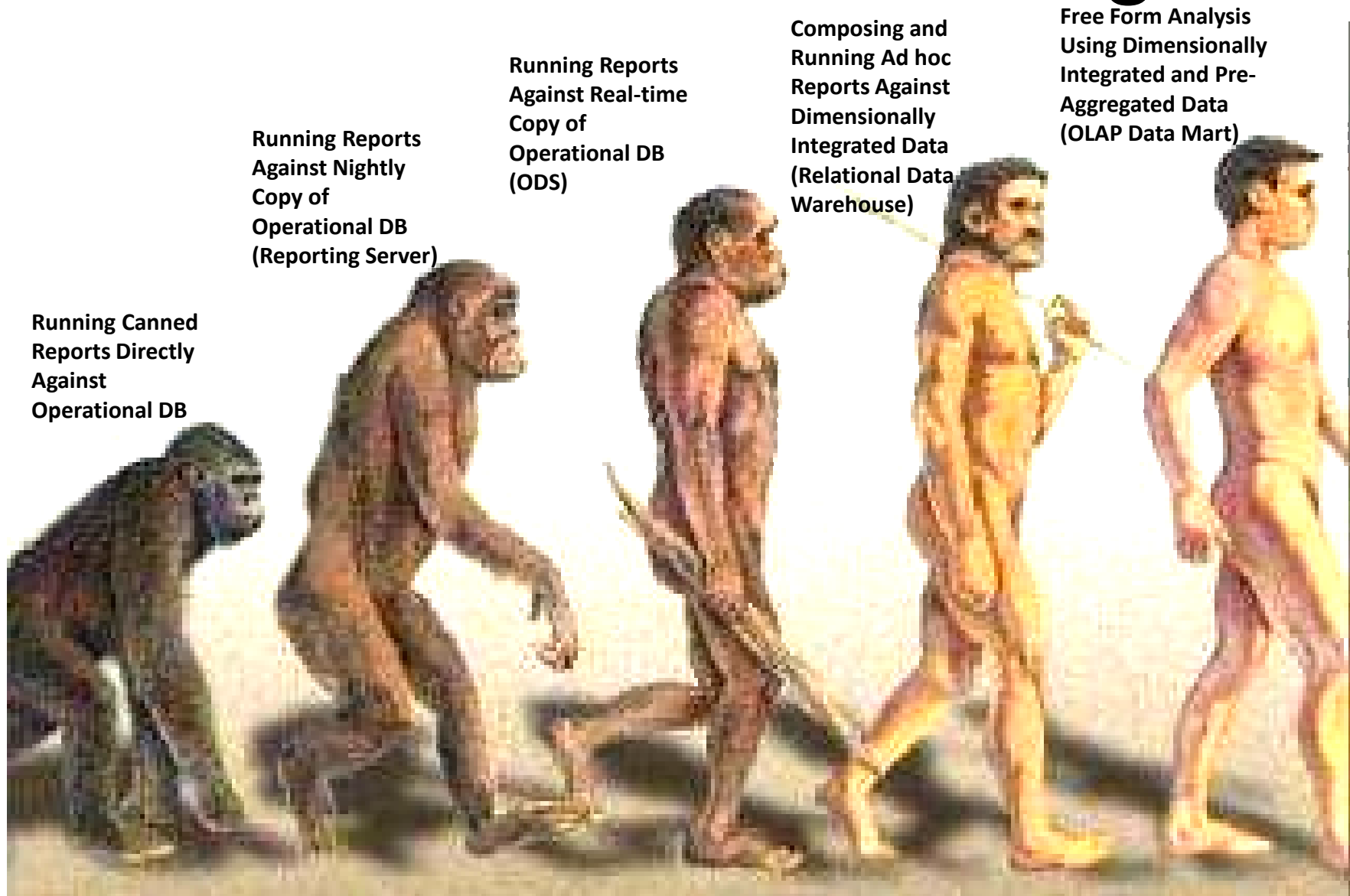
**BI Market Dynamics
and Future Directions**

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- BI now
- BI Maturity on Information Usage
- Industry Scenario/Market Trends
- BI Advances
- BIG Data: new paradigm
- Future of BI
- What Next?

Evolution of Business Intelligence



BI now...

BI is neither a product nor a system.

It is an architecture and a collection of integrated operational as well as decision-support applications and databases that provide the business community easy access to business data.



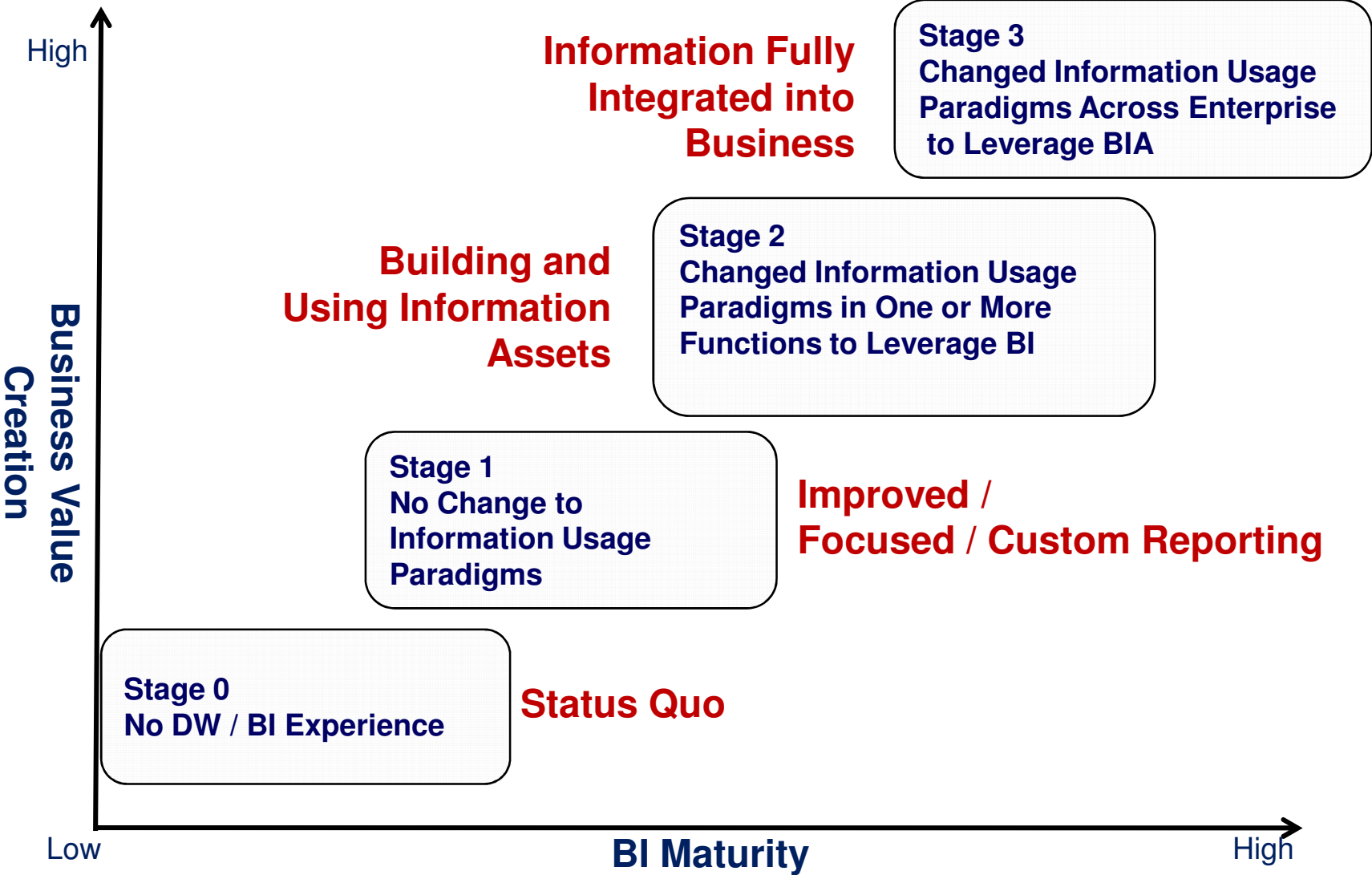
"BI" as an umbrella term to describe a set of concepts and methods to improve business decision-making by using fact-based support systems

BI 2.0

BI 2.0 is the recently-coined term which is part of the continually developing BI industry and heralds the next step for BI.

BI 2.0 is used to describe the acquisition, provision and analysis of "real time" data.

BI Maturity on Information Usage



These stages will remain as stepping stones for any enterprise, With associated pains and gains.

BI Industry Scenario...

- Today's BI market is ripe with opportunities
- Gaining market share, keeping customers and controlling costs remain key objectives through improved use of their existing database systems.
- Data warehousing and analytical skills are getting combined with an understanding of industry issues, as we refine and implement your vision.
- **According to Gartner survey of 1,400 CIOs, business intelligence was ranked the top technology priority surpassing security.**
- **The BI and analytics market is currently valued at \$8.5 Billion and is expected to grow to \$13 Billion over the next five years**

BI Market Trends

- ✓ In 2009, most money went to building BI platforms based on the tools of such companies as Oracle, SAP, Microsoft, IBM and SAS
- ✓ In 2010, applications rebounded and grew more than the platform side
- ✓ **Focus on advanced analytics and out-of-the box solutions**
- ✓ **Shifting usage patterns** - Reporting and ad hoc querying (most common) are declining - dashboards and interactive visualization are rising rapidly.
- ✓ **Ease of use** has emerged as the top buying criterion for the first time. Companies such as Targit, Tableau, Tibco Spotfire, QlikTech, Kxen, Board and LogiXML have emerged to fill this need.
- ✓ **BI with rapid data discovery and simplicity - desired**

BI platform revenue growth drivers

Three major demand-side factors that continue to expand use

Consumerization of BI – User friendly

BI tools must be simple, mobile and "fun" in order to expand use and value.

Business users are demanding the same experience from their BI tools that they have come to enjoy with their personal tools. The need for more intuitive and interactive BI tools and applications extends to users on the go, but the vast majority of organizations have yet to embrace mobile BI. This is set to change very quickly with the proliferation of Apple's iPhone and iPad products.

Support for Extreme Data Performance; Emerging Data Sources

Capabilities that enable the analysis of large, volatile and diverse data will open up possibilities for a broad range of new, high-value BI applications. This includes in-memory technology and social and content analytics. Combining these capabilities with support for extreme data volumes and consumer-oriented tools opens up possibilities for a broad range of new, high-value BI applications and will be another driver of growth.

BI as a Decision Platform

"improved decision making" is the top driver of BI purchases.

Capabilities that will evolve BI from an information delivery system to a decision platform will increase the value of BI and drive its growth.

**Global Business Intelligence Market to Grow 9.7 Percent in 2011 - Gartner
Ease of Use will surpass functionality.**

Cloud Computing - The next big trend that sounds nebulous

Basically virtual servers available over the Internet

Next it would be - Anything you consume outside the firewall is "in the cloud," including conventional outsourcing

- **SaaS** - single application through the browser
- **Utility Computing** - storage and virtual servers that IT can access on demand
- **Web services in the cloud** - enable developers to exploit functionality over the Internet
- **PaaS** - delivers development environments as a service
- **MSP (managed service providers)** - an application exposed to IT rather than to end-users, such as a virus scanning service for e-mail
- **Service commerce platforms** - A hybrid of SaaS and MSP
- **Internet integration** - bus in the cloud

A way to increase capacity or add capabilities on the fly without investing in new infrastructure, training new personnel, or licensing new software. Cloud computing encompasses any subscription-based or pay-per-use service that, in real time over the Internet, extends IT's existing capabilities

SaaS BI market will grow @22% pa through 2010-2013 -IDC

BI Infrastructure Is About Data

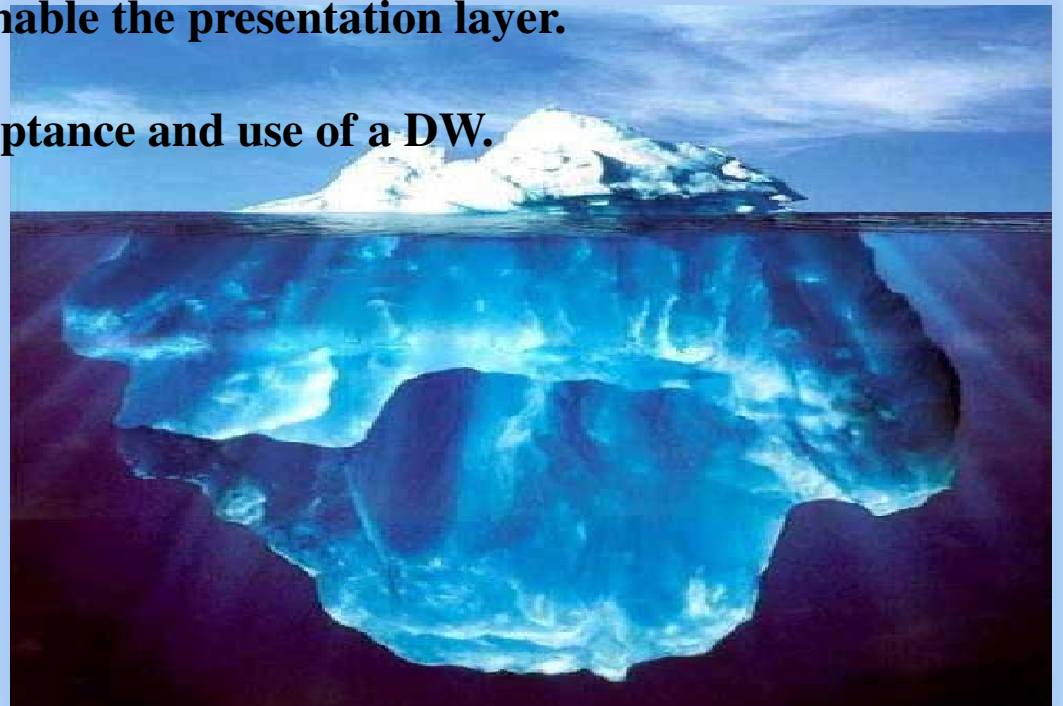
Information infrastructure to enable business intelligence relies on a solid integrated data infrastructure.

from Operational Data Stores to Enterprise Data Warehouses to Federated Data Marts.

The users only see what is presented to them which belies the complexity of the processes and infrastructure that enable the presentation layer.

Data Quality is essential to the acceptance and use of a DW.

BIG Data poses new challenges



BIG Data: The next frontier for innovation, competition, and productivity - McKinsey

Big data—a growing torrent

\$600 to buy a disk drive that can store all of the world's music

5 billion mobile phones in use in 2010

30 billion pieces of content shared on Facebook every month

40% projected growth in global data generated per year vs. **5%** growth in global IT spending

235 terabytes data collected by the US Library of Congress by April 2011

15 out of 17 sectors in the United States have more data stored per company than the US Library of Congress

Big data—capturing its value

\$300 billion potential annual value to US health care—more than double the total annual health care spending in Spain

€250 billion potential annual value to Europe's public sector administration—more than GDP of Greece

\$600 billion potential annual consumer surplus from using personal location data globally

60% potential increase in retailers' operating margins possible with big data

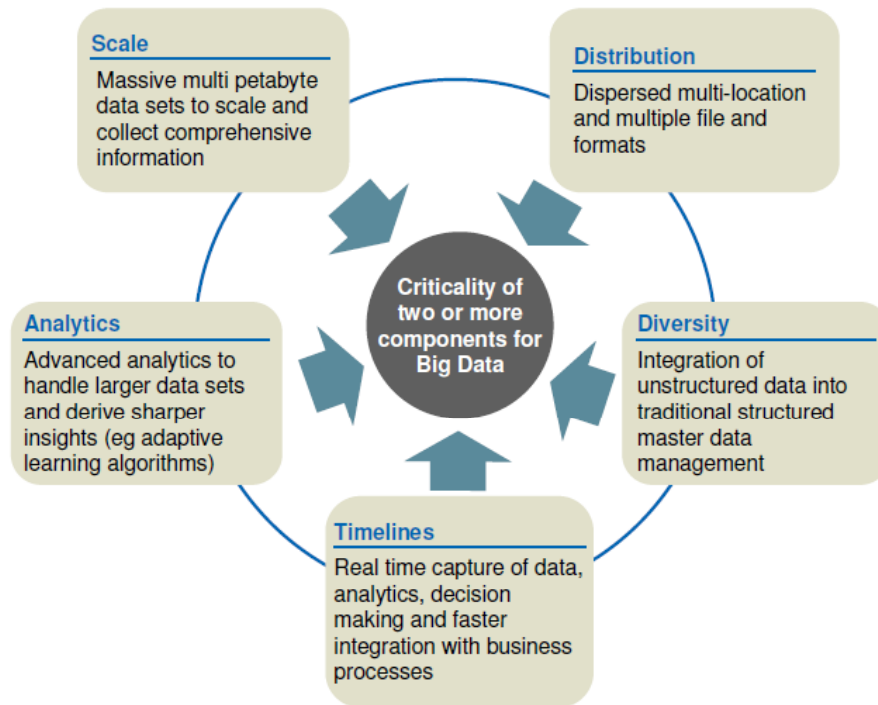
140,000–190,000 more deep analytical talent positions, and

1.5 million more data-savvy managers needed to take full advantage of big data in the United States

THE VOLUME OF DATA IS GROWING AT AN EXPONENTIAL RATE

BIG Data: new paradigm

Big Data is characterized by criticality of five elements



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Data volume as a defining attribute of big data

- Terabytes/ Petabytes
- Records / Transactions
- Tables / Files

Data Diversity/Variety

- Structured
- Unstructured
- Semi-structured
- Audio/Video

Data Distribution

- Multi-location
- Multi-formats
- Multi-files

Data feed mechanism (velocity/speed)

- Internet of things
- Real time
- Near time
- Batch

Infrastructure

Data management

Analytics

Presentation/access

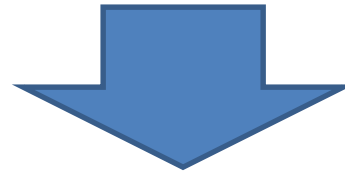
Services

No large vendor has established a dominant position

Leads to : collaborative service offerings

Social Media

- The penetration of social networks is increasing online and on smart phones frequent users are increasing as a share of total users
- Data generated from the Internet of Things will grow exponentially as the number of connected nodes increases



Customer connect
Speed of data integration and processing
Mobility
On-the-fly Analytics/Decision Support

Future of BI...

BI users are demanding

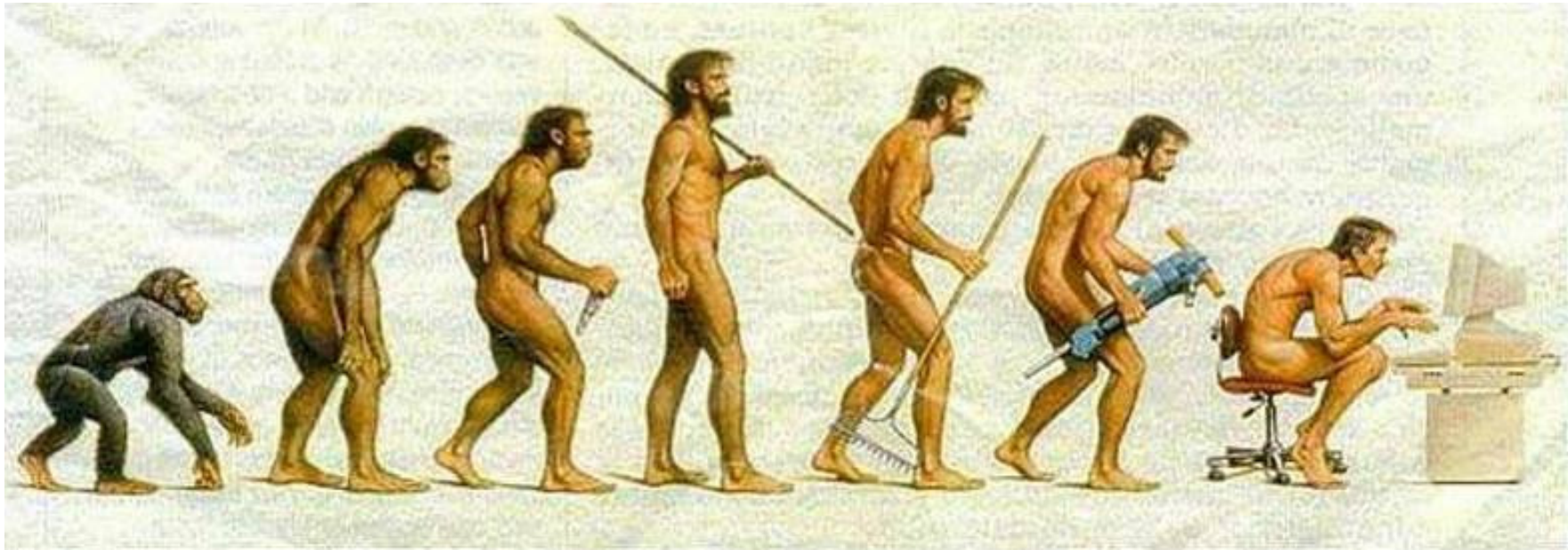
Real time BI or near real time analysis relating to their business, particularly in front line operations - **implying greater processing speeds;**

Up-to-date and fresh information in the same fashion as they monitor stock quotes online – **implying greater capability to gather all kinds of data** (numeric, text, audio, video, geo);

Monthly and even weekly analysis will not suffice – **implying there is no waiting time for information;**

Future of BI...

In the **not too distant future** companies will become dependent on real time business information in much the same fashion as people come to expect to get information on the internet in just one or two clicks. This **instant "Internet experience"** will create the new framework for business intelligence, but business processes will have to change to accommodate and exploit the real-time flows of business data.



BI will continue to evolve... as a process

Some more Market Indicators

“By 2014, 30% of analytic applications will use proactive, predictive and forecasting capabilities”

“The market for BI and analytics is undergoing gradual evolution.”

- Gartner. Feb 1st, 2011

“In 2011, the use of analytics as a competitive differentiator in selected industries will explode”

“The roles of marketing, sales, human resources, IT management, and finance will continue to be transformed by the use of analytics”

- International Institute for Analytics. Dec 3rd, 2010

Market Indicators (contd)

“By 2014, the metamorphosis of BI from IT-owned and report-centric will be virtually complete for a large number of organizations.”

- Gartner. Jan 6th, 2011

“These organizations will change what types of BI and analytics they use. They will change how they procure them and where they procure them from, and they will modify how information feeds decision making.”

- Gartner. Jan 6th, 2011

“By 2014, global market for Analytics software will grow to \$34Billion”

- IDC. Nov 9th, 2010

Despite growing need for BI software...

Pricing and Security issues continue to hinder the growth of BI market

Enterprise vendor fatigue

Traditional BI dominated by a small set of legacy vendors (Business Objects, Cognos, Microstrategy), who in recent years either purchased or were purchased by even larger vendors (SAP, Oracle, IBM).

Newer BI 2.0 vendors such as Qlikview, Tableau, etc. - there is the exact opposite experience. Simple, affordable price models, faster implementation, higher ROI.

The market is still dominated by the big players.

Therefore, a SaaS format for service and Role of Collaborative BIA.

What Next?

BIG Data: Frontier for innovation, competition & productivity

Key Insights

Insight #1: Exponential data growth

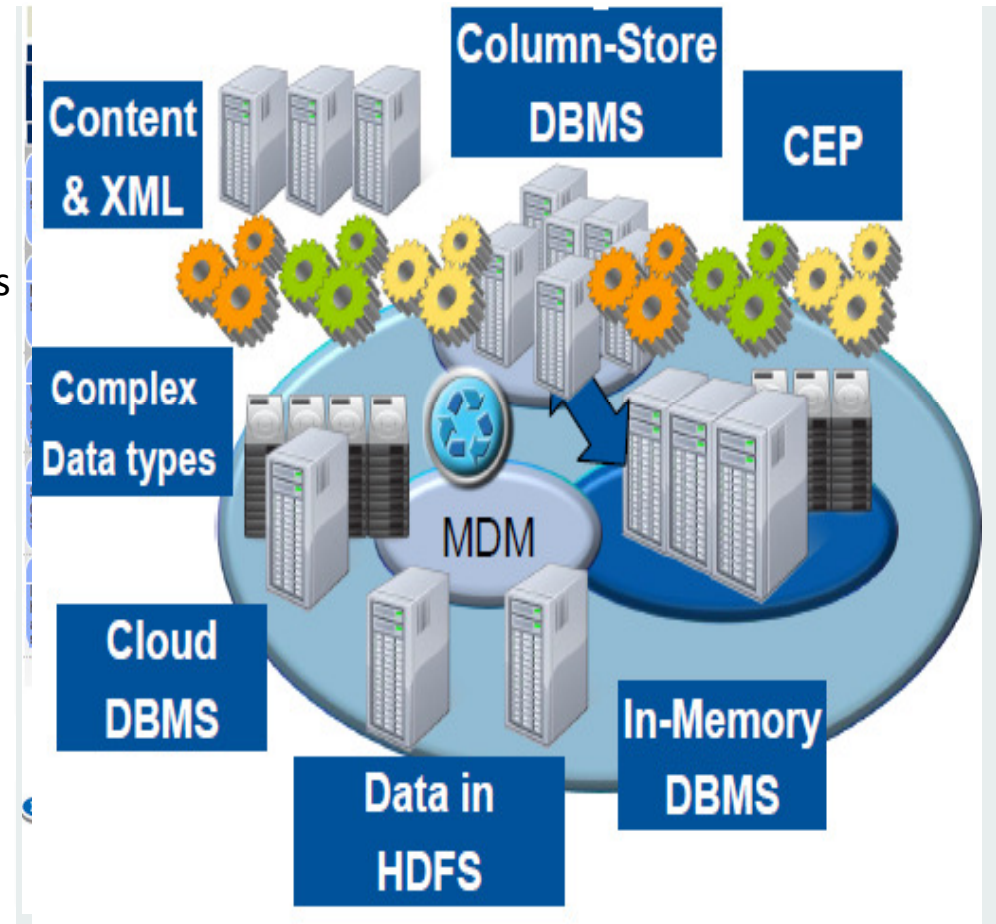
Insight #2: BIG data creates value in several ways and will be the basis for competition and growth

Insight #3: Use of BIG data will matter across sectors, some are poised for greater gains. Similar is the situation on different geographies.

Insight #4: Several issues need to be addressed to capture the full potential of BIG data

Insight #5: Shift in focal points relative to traditional BI/Analytics

Insight #6: Emergence of new technology and techniques with shortage on talent availability



What should bother us?

- ? IT Infrastructure keeping up with the changing needs and demand
- ? IT system helping to provide business transformation and leadership
- ? Organization not dependent on spreadsheets for mass reporting
- ? Functionalities to mine databases to get useful information out
- ? Enterprise mass reporting system works at the speed of thoughts
- ? Technology capable of creating magic of visualization and on-the-fly analytics for decision making

- ? **Dealing with big data challenges and opportunities: Real world strategies**
- ? **Role of Collaborative BI for Decision Support**
- ? **Transforming Decision Making - How BI's past will reflect product offerings in future?**

Thank You!

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