The Future of Business Analytics is Now!
The pressures on organizations are at a point where analytics has evolved from a business initiative to a **BUSINESS IMPERATIVE**

More organizations are using analytics to create a competitive advantage

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage</th>
<th>Increase</th>
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</thead>
<tbody>
<tr>
<td>2010</td>
<td>37%</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>58%</td>
<td>57%</td>
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And leaders are outperforming their competitors in key financial measures

<table>
<thead>
<tr>
<th>Measure</th>
<th>Result</th>
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<tbody>
<tr>
<td>Revenue Growth</td>
<td>1.6x</td>
</tr>
<tr>
<td>EBITDA Growth</td>
<td>2.0x</td>
</tr>
<tr>
<td>Stock Price Appreciation</td>
<td>2.5x</td>
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Source: The New Intelligent Enterprise, a joint MIT Sloan Management Review and IBM Institute of Business Value analytics research partnership. Copyright © Massachusetts Institute of Technology 2011

Source: Outperforming in a data-rich, hyper-connected world, IBM Center for Applied Insights study conducted in cooperation with the Economist Intelligence Unit and the IBM Institute of Business Value. 2012
The agenda

• Analytics Gets Personal
• Building the Narrative Alongside the Numbers
• Unlocking the Hidden Meaning in Text
• Value in Big Data Analytics
Analytics Gets Personal
Analytic experience is expanding

- How do you progress the experience in your organization?
  - Deliver information in context to the user's role/responsibility
  - Products that are easy to use, easy to understand
  - Capabilities integrated into other business activities
Consumerization of Business Analytics

- Intuitive interfaces (ease of use)
  - Visualization front and center
- Business user mash-ups of data from virtually any source
- “Mobile” deployments
- Sophistication with simplicity
IBM Cognos Business Intelligence
Mobile Workers

- Delivered in context of a person’s role
- Rich, visual experience, with potential new use cases within/outside the enterprise
- Fosters expanding business analytics within your environment
DEMO

IBM Cognos Mobile
Visualization Coach Guides Users to Best Visualization in Cognos Workspace
Explore visualization on IBM Many Eyes
IBM’s hub of interactive visualization surfacing thought leadership and technology

IBM Research Center for Advanced Visualization
Industry and visualization expertise
Interactive visualization with ‘looks and smarts’
Community of 100K+ visualization enthusiasts & experts
IBM Many Eyes

Destination web community of 100,000+ visualization enthusiasts

- Democratizes visualization creation
  - Create a visualization in three easy steps
- Share and embed across the web
- Visualization thought leadership
  - Learn best practices and industry insight from visualization luminaries
- Comprehensively redesigned and updated site launching soon

Preview the new site & explore visualizations at www.many-eyes.com/
Unlocking the Hidden Meaning in Text
Every organization’s need for text analysis

- Over 80% of information being stored is unstructured
- Text analytics unlocks the power of that information for a variety of functions and applications

What is Text Analytics?

Text Analytics (NLP*) describes a set of linguistic, statistical, and machine learning techniques that allow text to be analyzed and key information extracted for business integration

* NLP = Natural Language Processing
Many use cases in multiple industries where text analysis optimizes decision making and outcomes

- Social media and sentiment analysis
- Fraud detection and prediction (insurance, FSS, healthcare and more)
- Quality insight and warranty analysis (manufacturing)
- Case management analytics (public sector, FSS, healthcare and more)
- Healthcare provider analysis and optimization
- Government, police and security intelligence
- Regulatory compliance
Analyzing text to improve decision making and business outcomes is a closed loop process.

Ability to Rapidly Explore to Understand What is Happening

Ability to Model and Predict Better Business Outcomes

IBM Content Analytics

IBM SPSS Modeler Premium
DEMO

Text Analysis in Action
Value in Big Data Analytics
Study showed Four Phases of Adoption

When segmented into four groups based on current levels of big data activity, respondents showed significant consistency in organizational behaviors.

Total respondents n = 1061
Totals do not equal 100% due to rounding
Study highlights how organizations are moving forward with big data

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<tbody>
<tr>
<td>1</td>
<td>Customer analytics are driving big data initiatives</td>
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<tr>
<td>2</td>
<td>Big data is dependent upon a scalable and extensible information foundation</td>
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<tr>
<td>3</td>
<td>Initial big data efforts are focused on gaining insights from existing and new sources of internal data</td>
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<tr>
<td>4</td>
<td>Big data requires strong analytics capabilities</td>
</tr>
<tr>
<td>5</td>
<td>The emerging pattern of big data adoption is focused upon delivering measureable business value</td>
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Big Data Analytics – Finding the VALUE!

- **Gain more complete answers**
  - e.g. customer 360° including social media data

- **Create new perspectives**
  - e.g. optimize supply chain with sensor data and warranty claims

- **Reduce IT costs**
  - e.g. use Hadoop infrastructure for storing historical information

- **Uncover new business opportunities**
  - e.g. personalize co-marketing offers based on location information
Analytics with big data is both evolutionary and revolutionary

**User Interaction**
- Graphs and reports
- Hierarchical navigation
- Managed and adhoc delivery
- Manual analysis and action
- Visualize masses of data
- Context and relationship navigation
- Exploration of what’s important
- Automated action

**Applied Analytics**
- Numeric data & text attributes
- Sample based models
- Data analyzed at rest
- Humans interpret patterns
- Linguistic interpretation of meaning
- More accurate models
- Analyze stream data in motion
- Algorithms uncover hidden patterns

**Data Management**
- Reconcile sources together
- Query relational warehouses
- Individual transaction records
- Surface data directly from source
- Query specialized systems
- Data relationships and networks
- Humans interpret patterns

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Decision Management: Outcomes vs. Inputs

Moving from mechanics to outcomes—
Grow revenue 5%, increase margins 25%, Reduce cost 3%.

Engages business communities in new ways
Optimize Operational Processes with Decisions

Data
- Historical
- Simulated
- Text
- Video, Images
- Audio

Decision point
- Data instances
- Reports and queries on data aggregates
- Predictive models
- Answers and confidence
- Feedback and learning

Possible outcomes

Optimized Decisions

Business Rules
Optimization
Predictive Analytics
Take action and automate processes
Use analytics to drive automated decisions that maximize business outcomes faster

- Quickly process and analyze perishable data from multiple input streams
- React immediately to opportunities before they expire using insight and rules
- Visualize streaming data to enable analysis and monitoring of events
- Trigger processes to manage customer cases and improve business outcomes

- Smarter fraud detection
- Reduced claims processing time on low-risk claims by nearly 90%
- Saved more than USD 2.5 million in payouts to fraudulent customers
Visualize and explore big data for answers
Interact with smart visualizations and discover new routes to insight

• Apply new forms of visualization for new types of data, e.g. text, real-time streams
• Search and navigate across multiple sources and types of information
• Automatically categorize information for improved accessibility, greater usability

Streamlined support and operations by providing visibility to over 30 data repositories

What’s the fastest way to resolve the person’s issue?

Does the recent support call change my customer’s intent to buy?

What’s the sentiment of the new launched product?

Call Center Rep
Sales Manager
Data Analyst

P&G
Look to expand and evolve your analytics infrastructure
Next Steps…

1. Think….Plan….Act
   • Options available right now to advance your analytic journey
   • Determine which options will have biggest payback for your organization

2. Get it “right”
   • Right information to right people at right time in right consumption model
   • Consider accessing textual data to give richer insights

3. Tap information you’ve not been able to access
   • It’s there, just waiting to be understood; Start with readily accessible data, open architecture and expand.
   • Find the value—the key to analytic success.