An Introduction to Business Data Analytics:
A Business Analysis Viewpoint
BEHIND EFFECTIVE DECISION MAKING,
THERE IS A PROFUSION OF DATA AND METRICS,
BUT ABOVE ALL, THERE IS GREAT ANALYSIS
### Predicted need of Corporates

<table>
<thead>
<tr>
<th>Current Work</th>
<th>Potential Work</th>
<th>Increase %</th>
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<tbody>
<tr>
<td>Elicitation and Collaboration</td>
<td>Business/Data Analytics</td>
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<td>Requirements Analysis</td>
<td>Product Management</td>
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<tr>
<td>Solution Evaluation</td>
<td>Customer Journey Mapping</td>
<td>63%</td>
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<td>Business/Data Analytics</td>
<td>Solution Evaluation</td>
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<td>Business Analysis Planning and Monitoring</td>
<td>Design Thinking</td>
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<td>Requirements Life Cycle Management</td>
<td>Idea shaping and Visioning</td>
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<td>Testing</td>
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<td>Business Case Development</td>
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<td>Operations and Process Shaping/Analysis</td>
<td>Strategy Analysis &amp; Development</td>
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<td>Roadmap Development</td>
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<td>Design Thinking</td>
<td>Elicitation and Collaboration</td>
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<td>Request for Proposals</td>
<td>Business Change Implementation</td>
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<td>Design Definition</td>
<td>Benefits Realization and Management</td>
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<tr>
<td>Business Change Implementation</td>
<td>Design Definition</td>
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<td>Customer Journey Mapping</td>
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<td>Idea shaping and Visioning</td>
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<td>Business Architecture</td>
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<tr>
<td>Product Management</td>
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</tr>
<tr>
<td>Benefits Realization and Management</td>
<td>Business Analysis Planning and Monitoring</td>
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**Report: Business Analysis in the Age of Digital Transformation**
What We Will Cover

• What is Business Data Analytics
• 5 Domains of Business Data Analytics
• Opportunity for Business Analysts
• How IIBA is Supporting Organizations and Individuals in analytics
Driving Change

▪ Move from IT centric reporting to business analytics with self-service BI

▪ Gartner – “Citizen data scientist” coming to reality

▪ Business Intelligence – more than system of record with less data modeling required (data lakes)

▪ Big Data Analytics of Customers and Partners
What is Business Data Analytics?
Figure 1: Four Types of Analytics Capability
Source: Gartner (October 2014)
“a practice by which a specific set of techniques, competencies, and procedures are applied to perform continuous exploration, iteration, and investigation of past and current business data for the purposes of obtaining insights about a business that can lead to improved decision-making.”
Identify Research Questions
Framing the research question that business analytics will be used to answer. Align to business imperatives.

Source Data
Determining what data is needed to answer the research question, and assessing its quality. Solve the right problem!

Analyze Data
Determining how data analysis will be performed including which models and mathematical techniques will be used. Make sense of the data!

Interpret and Report Results
Using the results from data analytics to glean insights and determine how best to communicate the outcomes.

Use Results to Influence Decision Making
Use results from analytics to help the business make informed decisions.
IDENTIFY THE RESEARCH QUESTIONS

BUSINESS STAKEHOLDERS
HAVE NEEDS
FOR INFORMATION

ANALYST

DATA SCIENTIST

DEFINING THE RIGHT QUESTIONS
LEADING TO THE RIGHT INFORMATION
Assessing the Current State

Defining the Business Problem or Opportunity

Defining the Future State

Framing the Research Question

Assessing the Current State

Identify the Research Question

ACTIVITIES

IDENTIFY THE RESEARCH QUESTIONS
SOURCE THE DATA
<table>
<thead>
<tr>
<th><strong>Data Needed?</strong></th>
<th>Determine what data is needed to answer the question</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Data Exists?</strong></td>
<td>Identify what data is collected and which is still needed</td>
</tr>
<tr>
<td><strong>Timing?</strong></td>
<td>Make decisions on how/when to collect data &amp; what to scrub</td>
</tr>
<tr>
<td><strong>Quality?</strong></td>
<td>Assess the quality of the data collected – explore the data</td>
</tr>
<tr>
<td><strong>Adjust Approach?</strong></td>
<td>Make changes to the acquisition approach as needed</td>
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</tbody>
</table>
ANALYZE THE DATA
ANALYZE THE DATA ACTIVITIES

1. Prepare data
2. Perform data analysis
3. Results helpful?
4. Make adjustments

Consider creating a hypothesis and experimenting with data
INTERPRET AND REPORT RESULTS
1. Identify and understand stakeholders
2. Plan stakeholder communication
3. Determine communication needs
4. Derive insights from data
5. Communicate insights in business context
3 U’s of Data Storytelling

- Understand Your Data
- Understand Your Business Question or Need
- Understand Your Audience

Data Storytelling Tips & Tricks

- Simplicity
- Connection
- Visualizations
- Context
StoryTelling with Visualizations

1. What is the right graph for the story and situation
2. What does the audience need to know
3. Avoid Clutter - Keep it simple
4. Focus the Audience attention with visual perception
5. Derive insights from data – highlight important stuff
6. End with a ‘call to action’ of what audience is to do
USE RESULTS TO INFLUENCE DECISION MAKING

REPORT FINDINGS

REPORT & DECISIONS
USE RESULTS TO INFLUENCE DECISION MAKING ACTIVITIES

Decision Maker Perspectives to Consider –
- Intuition vs. Data
- Data + Instinct = Data Informed

Storytelling is the KEY to influence and action outcomes

Visualizations help tell the Story

Focus on INSIGHTS
- It is about new discovery or novel viewpoint
- It is NOT about aggregated data or a summary of findings.
The Opportunity for Business Analysts
Top Business Data Analytics Roadblocks

- Lack of management/financial support
- Failure to create a clear question to answer
- Inability to explain and communicate the results of the research
- Decision-makers not using the results of analytics
Evolving role of BA in the data science age

The new-age BA or BTA

- Not just a ‘requirement guru’
- Draws insights from data
- Storyteller – Builds narratives inclusive of data
- Adept at visualization
- Drives evidence-based decision making
- Takes a human-centric approach
- An industry and business expert
How BAs can drive insight-driven decision making

Adapted from: CGMA (2013), “From Insight to Impact: Unlocking Opportunities in Big Data”
# The Value of the Business Analyst

<table>
<thead>
<tr>
<th>Data Science</th>
<th>Context</th>
<th>BA Role</th>
<th>Purpose</th>
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</thead>
<tbody>
<tr>
<td>Obtain Data</td>
<td>Data</td>
<td>Business Context Business Imperative</td>
<td>What is the right question? What data needed?</td>
</tr>
<tr>
<td>Scrub Data</td>
<td>Information</td>
<td>Accurate picture of business problem</td>
<td>Is data valuable and reliable?</td>
</tr>
<tr>
<td>Explore and Model</td>
<td>Knowledge</td>
<td>What insights are aligned to business?</td>
<td>Makes Sense. Resolve intuition vs. data supported insight.</td>
</tr>
<tr>
<td>Interpret Data</td>
<td>Understanding</td>
<td>Storytelling &amp; Visualization from Insights</td>
<td>Insight that is fit for the business outcome needed.</td>
</tr>
<tr>
<td>--------</td>
<td>Wisdom</td>
<td>Consultative recommendations Change Management</td>
<td>Actionable Insights – Decision Input</td>
</tr>
</tbody>
</table>
How IIBA Will Support Organizations and Individuals With the Practice of Business Data Analytics

Future Plans:
1. Full ‘Guide’
2. Digital Tools, Templates
3. More use case scenarios
4. More exam prep info
5. More linking to ‘digital’
BUSINESS DATA ANALYTICS

- Explainer Videos
- Infographics
- Introductions
- Supporting Papers
- Webinars
- CBDA Certification

Explainer Video

Introductions to Business Data Analytics

Paper

White papers

CBDA Certification
Questions?

For product related questions….  
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• [Ken.Fulmer@iiba.org](mailto:Ken.Fulmer@iiba.org)

Let's connect…

Learn more about data  
[https://thedataliteracyproject.org](https://thedataliteracyproject.org)