Business Data Analytics: A Decision-Making Paradigm
BEHIND EFFECTIVE DECISION MAKING
THERE IS DATA AND METRICS, BUT ABOVE ALL
THERE IS GREAT ANALYSIS
## Predicted Need of Corporates

<table>
<thead>
<tr>
<th></th>
<th>Today’s Work</th>
<th>Tomorrow’s Work 3-5 years</th>
<th>% Report Increase</th>
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</thead>
<tbody>
<tr>
<td>Elicitation and Collaboration</td>
<td>100%</td>
<td>Business/Data Analytics</td>
<td>80%</td>
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<tr>
<td>Requirements Analysis</td>
<td>98%</td>
<td>Product Management</td>
<td>67%</td>
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<tr>
<td>Solution Evaluation</td>
<td>72%</td>
<td>Customer Journey Mapping</td>
<td>63%</td>
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<tr>
<td>Business/Data Analytics</td>
<td>71%</td>
<td>Solution Evaluation</td>
<td>62%</td>
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<tr>
<td>Monitoring</td>
<td>69%</td>
<td>Design Thinking</td>
<td>61%</td>
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<td>Requirements Life Cycle Management</td>
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<tr>
<td>Testing</td>
<td>62%</td>
<td>Organizational Change</td>
<td>60%</td>
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<tr>
<td>Business Case Development</td>
<td>60%</td>
<td>Business Architecture</td>
<td>59%</td>
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Source: Business Analysis in the Age of Digital Transformation Report
What we will cover

• What is Business Data Analytics
• 5 Domains of Business Data Analytics
• Business data analytics capabilities for the organization
“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.”

IIBA® Introduction to Business Data Analytics: A Practitioner’s View (2019)
4 Types of Analytics Capability

Source: Gartner (October 2014)
5 Practice Domains

1. Identify Research Questions
   Framing the research question that business analytics will be used to answer. Align to business imperatives.

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

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

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

5. Use Results to Influence Decision Making
   Use results from analytics to help the business make informed decisions.
Identify Research Question Activities

- Defining the Business Problem or Opportunity
- Assessing the Current State
- Defining the Future State
- Framing the Research Question
Source the Data Activities

- **Data Needed?** Determine what data is needed to answer the question
- **Data Exists?** Identify what data is collected and which is still needed
- **Timing?** Make decisions on how/when to collect data & what to scrub
- **Quality?** Assess the quality of the data collected – explore the data
- **Adjust Approach?** Make changes to the acquisition approach as needed
Analyze the Data

1. Prepare Data
2. Perform Data Analysis
3. Assess if the results are helpful
4. Make Adjustments

Consider creating a hypothesis and experimenting with data
Interpret and Report Results
Interpret and Report Results - BA Activities

1. Identify and understand stakeholders
2. Plan stakeholder communication
3. Determine communication needs
4. Derive insights from data
5. Document/communicate findings from completed analysis
Storytelling with Data

Data Storytelling

- Start with the Business Question or Need
- Create a Plot for your story
- Understand Your Audience

Data Storytelling Tips & Tricks

- Simplicity
- Connection
- Visualizations
- Context

Source: bworldonline.com/story-telling-in-data-science/
Making Sense of Data 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
Data Driven Decision Making Activities

Business Perspectives to Consider
- Stakeholder assessment
- Current and emerging state in the market

Focus on Business Aspects
- It is about business problem solution
- It is NOT about the data, or the math or just a summary of findings

Presenting Findings
- Focus on crafting the message in business context
- Think about each stakeholder perspective
Improving data analytics capabilities with business analysis

Balance between business experience and analytics results for effective business decisions through a more collaborative approach.

Examples of sources of learning:

https://thedataliteracyproject.org
https://www.coursera.org/specializations/introduction-data-science

Source: datasciencecentral.com/profiles/blogs/the-data-science-delusion
Data Analytics is a Team Sport

**Business / Functional Leader**
- Larger teams for ‘production’ and operations reporting and monitoring

**Initiative Lead**
- Small Team during discovery and ‘experimentation’ efforts

**Team Composition**
- **Business Analysts**: Bring business focus
- **Data Scientists**
- **Customer Experience**
- **Data Analysts**
- **Business/Enterprise Architects**

**Team Size**
- (core team members)
- (as situation warrants)
- (as needed)
- (as situation warrants)
Tools and skills for business analysis in the data science age

<table>
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<tr>
<th>The new-age BA or B(A)A</th>
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<tbody>
<tr>
<td>Not just a ‘requirement guru’</td>
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<tr>
<td>Draws insights from data</td>
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<tr>
<td>Storyteller – Builds narratives inclusive of data</td>
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<tr>
<td>Adept at visualization</td>
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<tr>
<td>Drives evidence-based decision making</td>
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<tr>
<td>Takes a human-centric approach</td>
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<tr>
<td>An industry and business expert</td>
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Presented by Accenture at BBC 2018
IIBA Data Analytics Resources

- Certification
- Explainer Videos
- Infographics
- Guides
- White Papers
- Webinars
Certification in Business Data Analytics (IIBA® CBDA)

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