DDI Summit : 2016
InSight.
Leadership through a new lens.
Get Visual!
Using Data Visualization to Inform and Influence

Evan Sinar, DDI Chief Scientist & Director, CABER
Why Visualize Data?
...Exploration

Explanation...

...Engagement & Emotion
For Persuasion...
“a continually expanding collection of HBR's most essential charts and infographics”
For Powerful Messaging

Source: http://www.gapminder.org/
For an Analytical, Influential HR

What HR Needs to Thrive with Analytics

**HR excels at:**
- Championing strategic talent planning
- Seeing gaps between talent now and needed
- Creating a learning culture
- Evaluating employee skill gaps
- Removing barriers and resistance to change
- Creating a shared team purpose
- Taking risks in learning
- Seeking attention for their work

**HR is weak at:**
- Analyzing business and financial data
- Understanding financial strategies and systems
- Isolating key business levers to focus decisions

- Communicating in business terms
- Using storytelling and visualization in messaging
- Inquisitiveness and curiosity
- Attention to detail
- Forcefully positioning ideas and initiatives

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...and for Family Bonding!
Research Shows Visualization Works

Visually more persuasive than tables (2014 study)

Enhanced managers’ decision-making capability (2014 study)

Visually generated more attention to, agreement with, and recall of a business strategy (2015 study)

Unique visualization types more memorable (2013 study)

Neuroscience principles explain visualization effectiveness (2015 study)
7 Types of Data Stories to Visualize
Visual Stories about... Movement/Flows

Role Transitioned
From

Individual Contributor
Front-line leader
Operational Leader
Strategic Leader

Role Transitioned
To

Individual Contributor
Front-line leader
Operational Leader
Strategic Leader
Visual Stories about...Change Over Time

Global Financial Crisis

Highest Ranking

- Operational Decision Making
- Customer Focus
- Cultivating Networks
- Leading Change
- Driving Execution
- Empowerment/Delegation
- Establishing Strategic Direction
- Coaching and Developing Others
- Entrepreneurship
- Building Organizational Talent

Lowest Ranking


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Visual Stories about…Change Over Time
## Visual Stories about...Relationships

<table>
<thead>
<tr>
<th>Interaction Skills</th>
<th>Relationship to Job Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Overall Performance</td>
</tr>
<tr>
<td><strong>Opens the discussion</strong></td>
<td><img src="MachineImage" alt="Blue" /></td>
</tr>
<tr>
<td><strong>Clarifies the details</strong></td>
<td><img src="MachineImage" alt="Yellow" /></td>
</tr>
<tr>
<td><strong>Develops others’ ideas</strong></td>
<td><img src="MachineImage" alt="Red" /></td>
</tr>
<tr>
<td><strong>Agrees on actions to take</strong></td>
<td><img src="MachineImage" alt="Dark Red" /></td>
</tr>
<tr>
<td><strong>Maintains or enhances Esteem</strong></td>
<td><img src="MachineImage" alt="Gray" /></td>
</tr>
<tr>
<td><strong>Listens and responds with Empathy</strong></td>
<td><img src="MachineImage" alt="Deep Purple" /></td>
</tr>
<tr>
<td><strong>Encourages Involvement</strong></td>
<td><img src="MachineImage" alt="Green" /></td>
</tr>
<tr>
<td><strong>Supports without removing responsibility</strong></td>
<td><img src="MachineImage" alt="Light Green" /></td>
</tr>
</tbody>
</table>
## Visual Stories about…Relationships

### Interaction Skills

<table>
<thead>
<tr>
<th>Skill</th>
<th>Overall Performance</th>
<th>Decision Making</th>
<th>Coaching</th>
<th>Engaging</th>
<th>Planning &amp; Organizing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opens the discussion</td>
<td>0.15</td>
<td>0.18</td>
<td>0.04</td>
<td>0.12</td>
<td>0.03</td>
</tr>
<tr>
<td>Clarifies the details</td>
<td>0.15</td>
<td>0.16</td>
<td>0.26</td>
<td>0.27</td>
<td>0.02</td>
</tr>
<tr>
<td>Develops others’ ideas</td>
<td>0.03</td>
<td>0.02</td>
<td>0.03</td>
<td>0.02</td>
<td>0.02</td>
</tr>
<tr>
<td>Agrees on actions to take</td>
<td>0.04</td>
<td>0.02</td>
<td>0.07</td>
<td>0.13</td>
<td>0.03</td>
</tr>
<tr>
<td>Maintains or enhances Esteem</td>
<td>0.02</td>
<td>0.05</td>
<td>0.02</td>
<td>0.01</td>
<td>0.08</td>
</tr>
<tr>
<td>Listens and responds with Empathy</td>
<td>0.33</td>
<td>0.24</td>
<td>0.34</td>
<td>0.33</td>
<td>0.29</td>
</tr>
<tr>
<td>Encourages Involvement</td>
<td>0.26</td>
<td>0.31</td>
<td>0.16</td>
<td>0.07</td>
<td>0.43</td>
</tr>
<tr>
<td>Supports without removing responsibility</td>
<td>0.03</td>
<td>0.02</td>
<td>0.08</td>
<td>0.04</td>
<td>0.11</td>
</tr>
</tbody>
</table>

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Visual Stories about...Complex Structures
Visual Stories about…Hierarchies
Visual Stories about... Hierarchies

DDI’s Competency Library 3.0

- Managing work
- Monitoring information
- Operational decision making
- Optimizing diversity
- Planning and organizing
- Implementing
- Reviews data
- Gathers information
- Makes connections
- Determines the best alternative
- Demonstrates decisiveness/action
- Considers others' perspectives
- Explores current resources
- Uses diversity as an advantage
- Champions diversity
- Prioritizes
- Determines tasks and resources
- Schedules
- Leverages resources
- Stays focused
- Stays informed
- Optimizes portfolio
- Balances sales funnel
- Manages time
- Communicates effectively
- Follows procedures

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Data Stories about…Voices (Text-based)
Even Descriptive Data Can be Invigorated

Leader Demographics

13,124 Leaders
2,031 Organizations
48 Countries
Visualization Design & Makeovers
Excel: One of the Worst Offenders

- Paid Search
- Request a return
- Sign up for newsletter
- Purchase item
- Submit support request

**Toy Sales**

<table>
<thead>
<tr>
<th>Sales</th>
<th>Dolls</th>
<th>Trucks</th>
<th>Puzzles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Region 1</td>
<td>2478</td>
<td>2031</td>
<td>1918</td>
</tr>
<tr>
<td>Region 2</td>
<td>2640</td>
<td>2173</td>
<td>2722</td>
</tr>
<tr>
<td>Region 3</td>
<td>2388</td>
<td>2790</td>
<td>2795</td>
</tr>
</tbody>
</table>

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Remove to improve
(the data-ink ratio)
Remove to improve (the data-ink ratio)
Remove to improve
the pie chart edition

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Visualization Tools & Closing Advice
Some Final Dataviz Design Advice

1. **Know Your Audience**

2. **Match Visualization Sophistication to Message Depth**

3. **Annotate for Context & Action**

4. **Minimalist Design = Maximum Clarity**

5. **Use Color Selectively & Sparingly**

6. **Make it Easy for the Reader**

7. **Visualize Responsibly**