



Does Size Really Matter? Getting to Results with Small, Medium and Big Data

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The environment for HR analytics is getting more complex by the day. Enter the term “big data,” and it seems even more confusion ensues. However, what does the onslaught of news about big data really mean to an HR professional? Does it change how you do your job? Will big data require massive investments? The big question is not about data, but about what you want to do with your data.

In today’s HR analytics environments, there appear to be four trends that are somewhat connected. The first is big data – everyone hears about it, and there are numerous presentations and articles exposing the importance of it. But, here’s what I want to know: when is data big, medium, small or extra small? And, more importantly, does it really matter? I’ll get back to that last question soon.

The second piece of news in the world of HR analytics is visualization. Presentations of data are getting prettier and more interesting. Infographics are very cool; they show patterns of data in one piece of paper, although you do need special printers with new sizes of paper to print many of them out. It’s not just infographics that are making the visual display of data more interesting. Presentations are being done with more pictures and graphics that are more colorful and have eye-appealing aspects to them (using objects in bar charts instead of lines, for example).

The third trend is the continuous use of new technology to both play with and display data. Tools that expand the use of Excel-type spreadsheets are allowing individuals who are not

statisticians to see patterns in data. Dashboards are bringing more and more data to HR professionals, managers and employees.

The fourth trend is the increased interest in storytelling. You don’t see this particular topic mentioned as much when discussing HR analytics; however, it may be the most important of them all. Storytelling changes the brain; it allows people to get emotionally connected to the meaning of dry and dull things like rows and columns of numbers. Storytelling has the potential to go beyond data, regardless of size, and drive action.

Results: The Fundamental Missing Ingredient

The world of HR analytics is complete with a lot of activity; however, what’s missing from many discussions and work in this area is a focus on measurable business results. Figure 1 displays the four trends discussed within the context of a model that I use when teaching analytics and data-driven storytelling. The model focuses on four key components: data, dialogue, action and results.



Figure 1. Data to Results Model.

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When storytelling is blended into the data process, one can engage in meaningful dialogue about the data. Dialogue, which is focused on story, can create emotional connections to the meaning in the data, and without the emotional attachment, data-driven messages lead to zero activity. New research on the brain and how it works basically shows that data alone pretty much does nothing to stimulate the brain. Columns, rows, bar charts, pie charts – we can make them beautiful and stunning, but if they are disconnected without a story, they are just that – bar charts, pie charts, rows and columns.

One of my favorite quotes about data comes from David Rock’s work. In his book titled, *Your Brain at Work*, he discusses what happens when someone sees lots of data:

“It’s like hundreds of new actors jumping on the stage briefly and then running off.”

When too much data are presented, an audience has way too many opportunities to shift focus. This prevents them

from having the type of focused dialogue that drives people to action. Scattered conversations often lead to what is commonly known as “analysis paralysis.” Put another way, participants can find many reasons (or excuses) to deny the messages in the data. Confusion, alternative hypotheses, and disbelief lead to inaction and zero measurable business results. Investments in data should lead to results; otherwise, why spend the type of money that’s being allocated to data?

Learning from the Data Audit Exercise

Over the last six years, I have been teaching a program called Data-Driven Storytelling. This content uniquely uses tools from the world of Hollywood, or how directors make movies, to help HR professionals learn how to do power storytelling, or create stories based on data. As part of this process, I developed a data audit process. The audit is not used to determine accuracy of data; it is focused on discovering which types of data are driving what results. The model from Figure 1 is the basis of the work; we plot which types of data lead to dialogue, action and ultimately results. The audit infuses a data model, which allows us to categorize data by level of complexity. We find that as data become more complex, fewer people will easily understand the work, rendering it less useful to bigger groups of individuals.

Using the audit process informally during teaching programs or formally with organizations interested in engaging in the process, we have learned the following:

1. Simple data can lead to high-impact business results. The reason for this is primarily due to the fact that simple data can be accessed by more people. Consider the case of the net promoter score being used to assess customer service. With only two numbers, organizations have been able to drive high impact results. I have seen the same dynamic with my own use of employee energy as a predictive, leading indicator in employee engagement work.
2. Complex data are useful for big-budget, high-impact projects that fewer people will need to be involved in for purposes of implementation. This is the space for big and complex data. For example, big and deep analysis of the conditions needed to successfully relocate a business may be done with high-quality and large-scale data. The people using these data will be a smaller group of individuals, uniquely qualified to assess the information and make decisions.
3. What most HR professionals consider results are not really results. As we dig through examples and the audit process, we find that many people think intermediary variables are outcomes. An example that resonates with most people goes back to the world of employee surveys. In many firms, they consider increasing scores on employee engagement surveys a measurable business result. It’s an outcome, but it’s not a business result; it is an intermediary variable. There’s a big leap of faith that an increase in an engagement score will lead to a business outcome, e.g., profitability, stock price increase, etc., and in some cases, we find it does, and in other cases, it does not. Complex data analysis is needed to determine if real links exist between the initial outcome (score going up) and the ultimate goal

(firm performance improving).

4. There’s a lot of data out there, far fewer conversations or dialogue about data, even less action and, sadly, very few results.
5. In the rare case when there is a result, no one seems to know about it.

Great storytellers do something that HR is not doing. They document their stories so that they can tell them, and others can recite them. I have been involved in several big HR analytic projects with companies, and many have led to documented business results, e.g., building new businesses, ROI as high as 2,000 percent in less than a year, but no one in the company knows about the work, because the teams I worked with left the organization. Human Resources needs to find ways to create institutional memories about stories that link data to dialogue, action and results.

With the data audit process, we are working to document which types of data lead to what types of results. This is about benchmarking process so that we can tell a firm that requires a given result, e.g., move to an innovation culture, successfully execute a merger, etc., what type of actions, dialogue and data are needed.

Does size matter? The answer is yes, but it’s not about the size of your data; it’s all about big results. Small, simple data can lead to the highest and most significant results in many organizations. Using simple data to tell stories that can be told and retold can lead to large, positive, and significant improvements in organizations – changes in culture, changes in growth and changes in profitability. Results are what matter.

About the Author



Dr. Theresa M. Welbourne is the FirstTier Banks distinguished professor of Business and director of the Center of Entrepreneurship at the University of Nebraska, Lincoln. She also is the founder, president, and CEO of eePulse, Inc., a human capital technology and consulting firm in the energy business – optimizing and directing human energy at work. The employee energy work is being used by organizations to transform performance management, drive growth and continuous innovation and complement employee engagement initiatives. With over 30 years in human resource management, Dr. Welbourne’s expertise is in the areas of human capital and strategic leadership in high growth, entrepreneurial and high change organizations. Dr. Welbourne’s research and work have been published in *Inc.*, *The Wall Street Journal*, *The Financial Times*, *Business Week*, *The New York Times*, and in books and journals such as the *Academy of Management Journal*, *Academy of Management Review*, *Strategic Management Journal*, *Journal of Management*, *Human Resource Planning* and many others. She consults with organizations in multiple industries and was awarded the 2012 Academy of Management Distinguished HR Executive Award (for contributions in research, teaching and practice). She is an affiliated research scientist with the Center for Effective Organizations, Marshall School of Business at the University of Southern California. She can be reached at Theresa@eepulse.com.