

data literacy & analytics workshops



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# **INSPIRING**

Your people want to be inspired so they are excited to turn what they learn into action. They will see best-in-class examples from great data storytellers of our time. They will walk away thinking differently about data and what they do every day to share data with their audiences. People leave this session inspired to meet a higher bar of visual data communications.

Bill provided a format that was engaging, educational, and inspirational. Our team is excited to put to practice his methodology and tools including his memorable acronyms for distilling messages!

# **EDUCATIONAL**

Everyone needs practical lessons they can turn around and translate into their day-to-day work. They will be exposed to research-driven best practices that will make them better data storytellers and able to create visualizations with impact. It's all about visual perception, pre-attentive processing, and just doing less (stripping away, editing down to what's most important.)

I love that Bill mixed information with interaction. I think it was the right mix of the two, which kept it informative, interesting and fun.



Everyone has trouble communicating with data. Many know the "what" and "why" but struggle to communicate the "how". They will learn how to focus in on the most important components of their work so their audience can gain insights that lead to better decisions. It's all about the story and the visual.

Bill really helped us think about how to tell a compelling story and visualize data & insights in an engaging way. He worked through specific materials with us and gave us tips & tricks that will help bring our work to a new level.



## **EXPERIENCED**

Bill has been delivering talks and workshops for years to a who's who of clients across a variety of industries.















# DATA LITERACY & ANALYTICS



Many people in a wide variety of roles work with data every single day. Whether reviewing surveys of constituents or examining effectiveness of marketing campaigns or evaluating KPIs or employee performance. And yet, most people self-report that they are not very confident in their ability to work with data beyond the most basic tasks. In fact, a survey of business leaders showed that just 24% consider themselves "data literate".

To solve this problem, we provide a full-day (8 hours, including lunch and breaks) workshop, customized from its standard curriculum for helping clients become more comfortable reading and working with data.

Bill Shander leads the workshop, which is optimized for up to 25 attendees. The workshop follows a well-established format, working from theory to practice throughout the day, allowing attendees to work hands-on on data challenges.

Attendees first learn how to think differently about data - to understand some key concepts and techniques for looking at data from different angles, which allow new and different insights to appear. They will also learn some analytic techniques, including how to apply those techniques in Excel. While the course is not an Excel skill-building course, we will learn some Excel skills in the process.

#### **Primary Takeaways**

- How to think about data and numbers in a new and productive way
- Finding meaning in data, not simply the answers to basic statistical questions
- Avoiding errors driven by biases, inaccurate, incomplete, or insufficient data
- A data analytics process and way of thinking that can be applied to all data analysis tasks
- Some specific analytics skills in Excel



#### Introduction

The day begins with a brief reminder of "why we are here". An introduction to the importance of data literacy and analytics, including an inspirational example that the group can aspire to emulate.

After this brief introduction, Bill introduces himself, and then asks the attendees to introduce themselves. This innocuous process is actually the first exercise of the day, as Bill requires attendees to introduce themselves in a very specific way, which is a good segue into the next discussion and exercise.

# 15 minutes



#### **Data Literacy Overview**

Data literacy is defined and explained via a series of examples. Attendees are encouraged to contribute their own challenges with data literacy - examples from their own work when they have been stuck wanting to explore different ideas in data but lacked the skills and experience to even know where to begin.

# 15 minutes

#### **Data Literacy Exercise**

Attendees think of their past challenges working with data and using some of the examples provided in the overview talk, try to capture new ideas and ways of approaching that data from new angles. This is a conceptual thinking exercise - it's about idea generation, not analytics. It's about asking questions of the data (literally), not yet finding the answers.



#### **Data Analytics Overview**

Once again we start with definitions - what is data analytics and what different kinds of analytics exist? Then we review some examples of data analytics in practice and some very high level conceptual ideas to help think about approaching the data to uncover insights. Think of this as "getting ready to do data analytics", which is still touching on data literacy concepts.

# 15 minutes

#### **Data Analytics Overview Exercise**

Once again, attendees are encouraged to think back to their own data challenges and, using the techniques described, to start to dive a bit deeper into their challenge, bringing more detail and nuance to their questions for their data that might lead to answers in the next steps.





#### **Data Cleaning and Transformation Lecture/Exercises**

Power Query is a tool built into Excel and Power BI that is a game-changer allowing powerful data transformations via a simple click and drag interface. And yet most people don't even know it exists. In this combination lecture and exercise segment, we will explore this tool in depth, cleaning and merging data together to prepare for analysis.

#### **Basic Analytics Techniques**

Data analytics is about forming hypotheses and testing those hypotheses in a variety of ways. We will introduce these concepts here and start to cover important ideas in data analytics, like cognitive biases, which can affect our ability to work effectively with data.



50 minutes



#### **Basic Statistical Knowledge**

Uh oh. Did someone say "stats class"?? Yes, we need to talk about some very basic statistical concepts. We jokingly call it "stats class" but it isn't. We just review some basic ideas that you do need to understand to do data analytics. You can't do analytics if you don't know the difference between mean and median – and when to use one vs the other. This is a math-phobe-friendly segment, we promise! We do include some slightly more advanced concepts like sample quality, standard deviation, and more. Most of these are explained, but not investigated fully. We need to understand them, not necessarily work with them. In other words, we're still incorporating Data Literacy concepts throughout the day.

#### **Basic Analytics Exercises**

Attendees explore a data set provided in the workshop. We use basic pivot tables to uncover very simple findings in the data. This begins with a demonstration of Pivot Tables, to the level required based on the skillset of the attendees. These exercises are interspersed throughout the stats class - we talk about some concepts, them explore them using Excel.







#### **Data Analytics Using Visualization**

Your eyes are one of your most important tools in data analytics. We will explore how to use visualization to explore your data, uncovering trends, patterns, and outliers. This includes a lengthy review of techniques for choosing the right chart for your data.



#### **Data Visualization Literacy Exercise**

Attendees will be presented with different visuals and asked to identify the "better" choice, and explain their reasoning. This is an open conversation among the group.





#### **Data Analytics Using Visualization Exercise**

We will continue to explore our data set, generating visuals from our analyses to see if we can find insights that the pivot tables themselves didn't reveal.

# **30** minutes

#### **Data Analysis Exercise**

We break into teams to investigate a new data set from scratch, applying all skills and techniques discussed throughout the workshop. This can be a data set your team provides (perhaps one of the data challenges attendees have been thinking about all day) or a generic data set Bill will bring with him. This exploration is meant to lead to real insights that can be converted into a data story/presentation once complete.





#### Customization

When working directly with organizations on their workshops, Bill is able to customize some of the content with the organization's own data. If given some example reports, presentations, infographics, etc., Bill will work them into the curriculum as talking points (with specific critiques and quick redesigns as suggested alternative approaches) and work through some personalized examples during the lessons. Also, some or all of the hands-on team exercises can be done using Bill's prepared exercises and/or using the organization's specific data challenges.

Additionally, Bill has more content modules (up to two days' worth of workshop content), which will be curated to provide the most appropriate training for your specific needs. For instance, Bill can provide a deeper dive into Storytelling Techniques and/or Excel or Power BI skills, should you require it. The standard curriculum as outlined works for 95% of clients, but we can determine the best approach for your company via a conversation about the attendees, their level of knowledge and experience on these topics, and your goals for the training.

## **BUDGET**



#### **Corporate Rate**

\$790/pp

A flat fee of \$15,800 includes the full-day workshop for up to 20 attendees, a key takeaways document, and digital copies of the slides. Additional attendees are \$600/person. When combined with another workshop (making it a two-day event), the second workshop budget is discounted by 20%.

#### **Coaching Program**

\$2,600/quarter\*

Bi-weekly office hours sessions (or the equivalent number of ad hoc consulting hours to be used as needed).

\*This is just a suggested volume/budget that can be adjusted based on need. It is based on an hourly rate of \$400.

Accepted and agreed:	
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