

Expert Advice for Storytelling with Data

Segment.com 5/10/2016

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Image:

<https://media.licdn.com/media/AAEAAQAAAAAAAAAK1AAAAJDFmMzM4NDJjLWYwMmEtNDZmOS1hNzMxLWNkNzRiMzdiODMwMQ.jpg>

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Deriving business value from data, then presenting it to key stakeholders, is an exercise in merging data and design for an audience. You see, an analysts' real job is not to find key insights, but to effectively persuade her audience to buy into the recommendations. After doing deep research and analysis, finding the right story is vital to effective communications.

All this pressure to “be creative” with how you approach data may draw up feelings of impending dread, but that need not be part of the process. Instead, heed the advice of expert analysts who stood up in front of conference room tables before you.

Reporting Content Guidelines

Organizing reports for a cohesive narrative flow is easy with help from a tried and tested outline. George Roumeliotis, Distinguished Data Scientist at Walmart, uses a simple framework for his projects:

1. My understanding of the business problem
2. How I will measure the business impact
3. What data is available
4. The initial solution hypothesis
5. The solution
6. The business impact of the solution

In his more than twenty years of work in data science, Roumeliotis has learned to communicate findings to any group. The framework he uses covers all the plot points any good data story should

have. Mr. Roumeliotis recommends working with your key stakeholders to ensure you have the right understanding of the business problem (or opportunity).

Meeting Challenges and Identifying Opportunities

[[Xena Ugrinsky](http://www.boozallen.com/about/leadership/executive-leadership/xena-ugrinsky)](http://www.boozallen.com/about/leadership/executive-leadership/xena-ugrinsky), Senior Vice President of Analytics, Cloud, and Strategy at Booz Allen Hamilton says business analysts face considerable challenges when working with IT to identify the value of data or data driven projects and investments. Arriving at a collective vision and business plan to leverage data, emerging technology, and new analytics methods is an important foundational requirement for getting to a place where value or opportunity can be driven by data. Driving business value is an endeavor that must be a collectively owned.

Ms. Ugrinsky goes on to say "Until all of the relevant parties – IT, Business, and the C Suite are all speaking the same language, the necessary decision making for the foundational pieces cannot occur, and the analyst is not in a position to communicate business value empirically."

Assuming analysts have good data, Ms. Ugrinsky offers the following advice for communicating value through data:

1. Pick a medium that allows the data to tell the story.
2. With traditional data, use a tabular layout with narrative.
3. With Big Data, the choice will be driven by the story that needs to be told.
4. Remember the audience. Keep your reporting succinct, simple, and with a clear flow that your target audience can easily follow.
5. Don't confuse understanding analytics with understanding what the data is telling you – whether it's opportunities, results, or risks.
6. Over-complication is your enemy.

Once you've planned the content and general flow of your report, it's time to spruce it up for the big day.

Visualization and Standards-based Design

The [[over-the-counter-data-standards \(OTCD\)](http://overthecounterdata.com/s/OTCDStandards.pdf)](http://overthecounterdata.com/s/OTCDStandards.pdf) is a design approach developed to help educators create more accurate data-driven reports. The standards generally refer to the use of a data system, not a single presentation or report. These standards represent a synthesis of more than 300 studies and other sources from experts in the field. Here are a few that are broadly applicable to almost any data story.

- **Labels:** Properly labeled data is easier to digest. The OTCD suggests a structured approach to labeling. "Be as concise as good sense allows" it says. William Strunk, Jr. and E.B. White would be pleased with this particular suggestion. Consistent labeling that's easy to decipher at a glance will help your readers move smoothly through data points.

- **Supplemental Documentation:** Everything a reader might need can't be contained in a label, so the OTCD recommends adding reference sheets and guides. Be concise and consistent with data layout and presentation. If you're using abbreviations for some words, do so consistently.

- **Design to Delight and Avoid Clutter:** Design is by far the longest section of the the OTCD standards document. The document assumes analysts are not also graphic designers, as it should. Advice to *Avoid Clutter* consumes more space on the page than other items listed under the *Design* heading. It contains detailed recommendations for using everything from outlines to white space. We could devote an entire blog post to only a handful of the ten standards recommended.

Invisible Actions

Consider contextual menus used in mobile UIs. These menus are appropriately labeled and offer up specific options based on your location and actions within the app or device. Menu actions seem almost magical because they present a personalized view after specific actions. The complexity involved in creating these menus is both unknown and unseen by the user. There is no on-screen display to tell you how the contextual menu was created, it simply exists based on your previous

actions. Similarly, reporting should be free from in-depth explanations about *how* you arrived at a particular point in the data story and should instead focus on the what you've identified and its impact. To reiterate Ms. Ugrinsky's earlier statement, "Over-complication is your enemy."

"Murder your darlings" is a phrase popular among authors. Perhaps the most important step in effectively communicating about data is the editing of your story.