5 Steps for Effective Data Storytelling
Why does storytelling matter?

On its own, data can’t do a whole lot for you. Collect as much of it as you’d like — it won’t drive consensus, it won’t inspire action.

So why is data such a big deal then? Why is IDC forecasting that revenues for big data and business intelligence will reach $203 billion by 2020?¹

Because of data’s potential. When you analyze your data, interpret its trends, and present your discoveries in a way that everyone can understand, it transforms your data into something tremendously valuable — it turns it into a story.

How do you do that? Read on to discover the secrets of data storytelling...

¹ Big data market $203 billion by 2020
http://www.idc.com/getdoc.jsp?containerId=prUS41826116
Without a story

Presenting your data as a series of disjointed charts and graphs could result in the audience struggling to understand it – or worse, come to the wrong conclusions entirely. This in turn can lead to flawed decision-making, and serious consequences for your business.

5 signs you’re not telling an effective story:

1. Blank stares
2. Too many questions about the validity of data
3. Difficulty retaining information
4. Uncertainty about next steps
5. Doubts about why data matters
Humans are hardwired to respond to stories. Our distant ancestors told stories to share information and build understanding — a compelling story could create order out of chaos and help people remember what they most needed to know to survive.

Today, we harness these same instincts to tell effective stories with data. Data stories:

- Reveal the signal in the noise, bringing insights to the surface, so they’re clear and compelling.
- Focus your audience’s attention on what’s most important, and create a frame of reference so they can see why it matters.
- Heighten people’s engagement and emotional response, leading to greater retention of information – and increasing the likelihood they’ll take action.

In short, stories bring data to life.

* Source: Jennifer Aaker, GeneralAtlantic Professor of Marketing, Stanford Graduate School of Business
Creating a story from your data

In this eBook, we’ll explore the steps it takes to tell effective data stories, including:

1. Understanding your audience
2. Choosing the right data and visualizations
3. Drawing attention to key information
4. Developing a narrative
5. Engaging your audience
1 Know your audience.
Before you start telling your story, you first need to consider who you’ll be telling it to. Think about what makes them tick, where their interests lie, and how best to connect with them. To win an audience over, you have to understand where they’re coming from, and then connect with them on an emotional and personal level.

Who are we presenting to?
What are their goals? Are they technical or casual? Do they prefer the big picture or little details?

What do we want them to know?
What’s the most important takeaway? What feeling should they walk away with? Curiosity? Inspiration? Motivation?

What action do we want them to take?
Do we want them to share this story with others? Understand a phenomenon in a new light? Make a bold decision?
When considering your audience, remember that different team members have different objectives and different points of view. Effective data storytelling should speak to these differences.

One great place to start is by considering your audience’s level of understanding on the topic you’re presenting:

- **Beginner:** New to subject, but eager for a deeper understanding
- **Generalist:** Most interested in major themes and high-level analysis
- **Specialist:** Expert who wants information to be less story-driven and more exploratory
- **Supervisor:** Seeks actionable insights, as well as access to details
- **Executive:** Time-conscious, and requires conclusions and implications upfront

**Common audiences – and what they respond to:**

- **Analysts**
  - have a desire for detail and want to understand your methodology. You’ll need to convince them that your analysis is robust.

- **Business Managers**
  - are primarily motivated by self-interest and look to improve processes. You’ll need to show them how your insights can lead to tangible results.

- **Executives**
  - are interested in the bottom line and are persuaded by key statistics and KPIs. You should focus on the key takeaways and how they impact the overall business.
Choose the right data and visualizations.
Although they’re often thought of as the same thing, data visualizations ≠ data storytelling. But visualizations are still a critical component of compelling narratives. Presented properly, data visualizations help audiences compare information, clarify meaning, and put stories into the proper context.

How do you create great data visualizations?

• Choose the right data to show
• Select the best visualization to represent your data
• Design your visualization to highlight what’s most important
Choose the right data

First things first, to tell a clear and compelling story, you need to separate the signal from the noise, and choose the right data for your needs:

- **Identify the subsets of data that represent the specific points you want to convey.**
- **Remove any extraneous data that isn’t imperative to your story – showing too much information makes it hard for readers to spot the insights you want them to see.**
- **Use metrics and naming conventions that your audience will recognize – things like capital expenditure, change in sales, or time to hire.**
Choose the best visualization.

Now that you know what to show, it’s time to create the visualizations themselves. Start by asking yourself what the visualization needs to accomplish – different visualizations have different strengths and weaknesses:

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<thead>
<tr>
<th>Are you ...</th>
<th>Then use ...</th>
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<tbody>
<tr>
<td>Comparing data</td>
<td>Bar Chart</td>
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<td>Line Chart</td>
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<td>Circular Area Chart</td>
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<td>Showing the overall composition of data</td>
<td>Stacked Area Chart</td>
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<td>Stacked Bar Chart</td>
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<td>Showing the distribution of data</td>
<td>Bar Histogram</td>
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<td>Scatter Plot</td>
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<tr>
<td>Showing the relationship between data points</td>
<td>Scatter Plot</td>
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Data Viz Design Tips

Make it easy to interpret
Use user-friendly charts, like bar and line graphs. Avoid complex visualizations that require extra time to comprehend the data. And remember: Color and design matter. Here are a few basic tips:

Avoid “chartjunk” such as fancy shading, outlines, and 3D shapes that detract from the overall impact of your data.

Color can be a powerful aid to your visualizations, giving clear cues about relative value, points of emphasis, and differentiation between data sets.

Want to up your data viz game even further?
Check out our 7 Tips for More Effective Visualizations eBook.
Draw attention to key information.
To be an effective data storyteller, you need to direct your audience’s attention to the most important points within your data.

If your graphs are dense, and don’t emphasize what matters, your audience will likely have trouble grasping the point of your story. They may even come to the wrong conclusions.

In short, you can’t expect your audience to know where to look or what to think — you need to show them. Fortunately, a few simple design tricks can help you draw attention to where it’s needed most.
One great trick for directing attention is to use preattentive attributes within your visualizations.

Preattentive attributes are visual elements that are instantaneously recognized by our iconic memory — an ultra-short-term memory component of the visual memory system. They help draw attention to the most important parts of a visualization.

Common preattentive attributes include:

- **Color**: Alert users to the most critical points by using a bold color like red or orange.

- **Placement**: Help users quickly grasp the purpose of a data visualization by placing its title in the top-left portion of the page.

- **Size**: Draw attention to the most important chart or graph by making it the largest element on the page.

Develop a narrative.
If you just display your data, without giving it context, your audience will take brief notice (at best!) and then move on, without really retaining any of the insights you’ve shared.

To truly drive engagement and inspire action, you need to connect with the audience on both a logical and emotional level. And the way to do that is to use your data to craft a compelling narrative.

“Stories are remembered up to 22 times more than facts alone.”

— Jennifer Aaker, General Atlantic Professor of Marketing, Stanford Graduate School of Business
Want to make sure you’re telling your story the right way?

Craft your narrative using the following elements:

- **Header:** Headers should be easy to understand, explain the purpose of the presentation, and compel readers to keep reading.
- **Short Narrative Summary:** Summaries should outline the key facts the story will reveal, and why the audience should care.
- **Call To Action (CTA):** The CTA should be clear and spur a tangible response, like discussion or a decision.

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* Source: Cole Nussbaumer Knaflic: “a Google example: preattentive attributes”
http://www.storytellingwithdata.com/blog/2011/10/google-example-preattentive-attributes
5 Engage your audience.
Stories temporarily bypass our logical filter to engage with us on an emotional level – where decisions are really made. Caught up in a story, we briefly suspend disbelief and listen with less skepticism. As a result, stories keep us focused on the big picture, rather than the nitpicky details.

This is a clear advantage for data storytellers. And with the right analytics technology at your disposal, you can increase that advantage even further.
The right analytics solution allows data stories to be...

**Interactive.**

With interactive analytics, when questions are raised by your audience, you can easily go back to the data and find answers in real time. Using tools like:

- **Filters** to control what data is shown in the visualization.
- **Separate pages** to break large problems into smaller, more manageable elements.
- **Windows of analysis** for entering new data to be analyzed.

But, to provide this level of interactivity, you need tools that are both powerful and intuitive, that let anyone explore as they see fit – quickly and easily.

**Sharable.**

Data stories can transform businesses, but to really maximize their impact, you need to be able to share them easily — with your team, across your business, and out to your customers. Fortunately, new analytics technologies are making it easier than ever to share information.

**Centralized.**

By placing your stories in a centralized location, you can provide your business with a repository of valuable information that can be referred to again and again — or help in the creation of new stories.
Want to do data storytelling the right way? Qlik Sense® can help.

Qlik Sense makes data storytelling accessible to the whole team, empowering anyone and everyone to persuade, collaborate, and drive action with data.

With Qlik Sense, data storytellers can now:

• Capture insights at any point in time
• Present their analyses through a narrative framework
• Help decision-makers get a clearer picture of the state of the business
• Enable presenters and team members to dive back into the data at any time for further analysis
• Secure a high degree of trust in the data

Ready to go beyond data, and start telling data stories?

START YOUR FREE TRIAL OF QLIK SENSE TODAY!
See the whole story that lives within your data.

qlik.com/whole-story