Getting more from your data:

MORE THAN JUST A
PRETTY PICTURE

The importance of storytelling to improve decision-making and spark action

Data is the underpinning of good decision-making, but even organizations with access to timely and accurate data – and the skills necessary to identify, acquire, and analyze data – can make suboptimal decisions. Often this arises from the inability to effectively present the data in a way that highlights important insights that could fuel consensus and action. The "best" data, poorly conveyed, is hardly better than inaccurate data as it's unlikely to drive well-chosen decisions.

In many cases, acquiring the data is the easy part – using it to inspire action – not so easy. A few years back, Microsoft surveyed 2,000 people and, using electroencephalograms, studied the brain activity of an added 112 study participants. They found that since 2000 the average attention span had fallen from 12 seconds to 8 seconds. People inundated with information and data tend to spend less time processing each piece. This finding underscores an important lesson about visualizing and presenting data. You only have a short window to grab the audience's attention, and there's no guarantee that after grabbing it, you can keep it long enough to communicate the key points. Creating effective presentations in which the audience can grasp the most critical information and make decisions based on that data is tough – and it is only going to get tougher.

Why do so many presentations not motivate action?

Given the importance of data for sound business decision-making – it can be used to uncover new revenue opportunities, contain costs, respond to a competitor's tactics, etc. You might assume that the skills related to presenting data would be widely recognized and embraced. In practice, that's not usually the case. Presenters often fall into traps that, instead of fostering the understanding and effective use of data, inhibit it. The following are some of the tendencies that can overwhelm and confuse viewers:

- **Showing all the data** – if you've accumulated a lot of valuable data, it's tempting to share it all. Keep in mind that more isn't always better. Filtering the data helps the audience focus on what's essential – and keeps the presentation on message.

- **Too many graphs and charts.** Charts and graphs are great ways to communicate key data points and trends, but again, it's important to stay on message. Only use graphics that lead to or underscore the major point(s). Also, structure your charts and graphs so that the integrity of the conclusion drawn from it is supported by the data.

- **Failure to promote the "big idea."** Oftentimes even if the "right" data is presented the "right" way, the audience misses the big picture, and either doesn't act or takes the "wrong" action. Data without a story lacks impact - this is where data visualization and storytelling come in.

The visualization framework table below offers a checklist to use when thinking about how to visually present data. Three questions underlying the framework are 1) are your visuals welcoming and quickly decipherable? 2) do your visualizations lend themselves to telling a story? and 3) does the story they tell lead to action?

VISUALIZATION FRAMEWORK

Build with a Purpose
- Identifies an audience
- Defines a scope for the data to be analyzed
- Describes the actionable outcome for the user

Keep asking why
- Why am I doing what I'm doing
- Does this serve my purpose statement?
- Does the visual fit the data? Or is it "just cool"?

Have a vision
- How/Where will users access
- What will be the most important?
- What type of story to be told
- What type of story should be told?
- What road blocks might we face after deployment

Include Feedback Loops
- Mockups
- Whiteboard Sessions
- Question Flow Maps
- Iterative Development
- Post-Delivery Survey

Steal Great Design
- Via the web
- Printed Text
- Identify the best possible way to display the data

Data visualization is just a start. Storytelling gives it power.

Data visualization is about communicating the essence of data visually. In its most basic form, it frequently draws from data housed in a spreadsheet to create charts and graphs. Visualization often uses shapes, colors, and sizes to focus visual attention on the data findings. Data visualization should support and complement a story that provides context, promotes and draws attention to key insights, and is actionable. Data visualizations driven by storytelling release the untapped power in the data and drive focused and sustained action. Good storytelling requires serious commitment as it is neither quick nor easy. One study on presentations found that 46% of survey respondents listed creating a compelling story as the most challenging aspect of crafting a presentation.

STORYTELLING REQUIRES ANSWERING THREE QUESTIONS:

1. What message am I conveying to my audience, and what do I want them to do?

2. Do I have the right data for the task at hand?

3. How is a presentation that inspires action best structured?

Data storytelling goes beyond creating good visualizations to offer the audience a holistic view of the message. Instead of messaging focused on the data, it is focused on the audience. This requires that holistic message creation precedes data visualization.

Omit any data that doesn't help motivate the audience to act.

Getting started with data storytelling

As noted, compelling storytelling begins with understanding the audience. If you don't understand your audience, you will find it exceedingly difficult, if not impossible, to craft a compelling story that will drive them to act. Understanding the audience means knowing what they care about and the right level of detail relevant to their interests and needs. It might take time but skipping this step or giving it short shrift makes your goal harder to achieve. These suggestions can help you start thinking about your audience:

» Why are they attending? Are some attendees required to attend? What do they want to get from your presentation?

» What role does each audience member play in the organization? Are any accountable to others in attendance? Who are the key members of the audience that will drive action based on your presentation? What interests and motivates them?

» Is it a homogeneous or heterogeneous audience? A heterogeneous audience presents more significant challenges as their interests might diverge. Will the same level of detail appeal to all? Is there jargon you want to avoid?

» Will audience members have conflicting goals? Do any of their goals conflict with yours?

» What is their level of familiarity with what you are presenting? What do they already know? Will they come in with assumptions that might be incorrect?

» What questions would you expect them to ask? What are the 3 to 4 top issues on their minds related to your topic?

» Will any important decision-makers not be in attendance? How will you communicate with them?

Think about speaking with a few attendees before your presentation to better clarify some of the items listed above.

Once you've profiled your audience, the next step in storytelling is to identify the information you want the audience to grasp or what actions you want them to take. You should construct the content, style, and visuals based on the audience. It's important to remember that research has found that business decisions are not based just on logic and reason; emotions play a vital role in decision making. Stories that evoke emotions are more relatable, memorable, persuasive, and compelling. Research on data storytelling confirms its effectiveness:

- One study by author/teacher Chip Heath had students give a one-minute speech that typically contained 2.5 statistics. Only 10% of the students told a story, yet 63% of the audience remembered the stories while just 5% could remember a single statistic.

- A study by Quantified Communications found that messages that included well-crafted stories were 35 percent more persuasive than the average communication.

- Research has found that character-driven stories cause our bodies to produce oxytocin, a chemical shown to induce people to engage in cooperative behaviors – to motivate people to work together.

Although it might take more research and thought to produce a story that triggers an emotional response – doing so can be worth the investment in time and energy.

Data storytelling is composed of three critical components: the data, the visuals, and the narrative. After you know which messages you are striving to convey or the actions you want to inspire, it's a matter of selecting the data that meets those needs and omitting data that does not.

The graphic below further explains how combining data, visuals, and narrative paves the way to help the audience obtain clear insights, thereby increasing the likelihood of them acting on those insights.
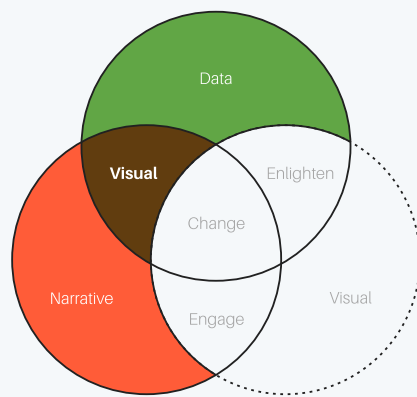

When narrative is coupled with data, it helps to **explain** to your audience what's happening in the data and why a particular insight is important
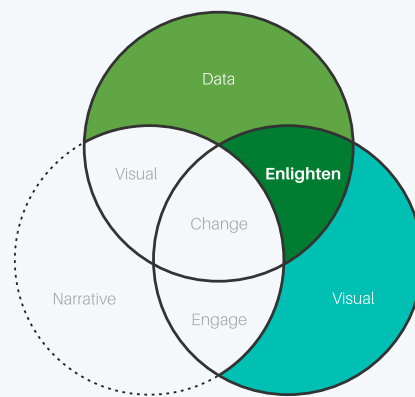
When visuals are applied to data, they can **enlighten** the audience to insights that they wouldn't see without charts or graphs
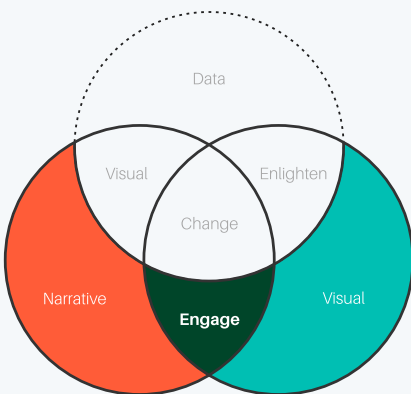
Finally, when narrative and visuals are merged together, they can **engage** or even entertain an audience.
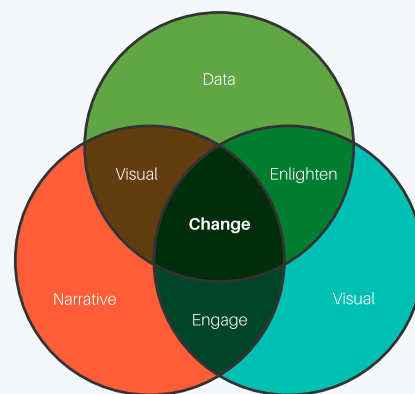
When you combine the right visuals and narrative with the right data, you have a data story that can influence and drive **change**.

Source: Forbes

Books are devoted to creating effective visuals, and an in-depth discussion of the topic is well beyond the scope of this piece. If you want to learn more about the subject, you should read one of Edward Tufte's or Stephen Few's books.

The last storytelling component is the narrative. Not every story contains a narrative. Sometimes, as in the case with the Google example that follows, the narrative is created in the viewer's mind (audience) as they consume the presentation. In other instances, a story narrative created by the presenter is recounted as the presentation unfolds. The glue that holds the narrative together is the big idea you're trying to convey, and there is no one formula for telling a story. Good storytellers often tell the same story differently until they find a structure that works best for the specific tale.

Getting started with data storytelling

Google Legal Marketing Story

The following graphic uses a wealth of statistics to prove the value of Google search to attorneys looking to leverage search to attract new clients. The statistics cited make the case that Google Search is an effective tool to attract new clients and offers attorneys a to-do list of best practices to employ to increase the likelihood of prospects finding them and becoming clients.

Source: Google

Concluding thoughts on data visualization and storytelling

A couple of points worth highlighting or reiterating:

Good data is only a starting point

Presenting even the highest quality data is unlikely to spur enthusiasm and concerted action unless it is presented clearly and supported by a story that lets the audience see how the data dictates a course of action.

If you don't think of yourself as a good storyteller, then enlist someone within your organization who might help.

Salespeople and marketers often tell stories as part of their jobs and might offer valuable guidance and insights. Graphic artists know how to create visuals that communicate. They understand typography and how to create visual layouts that don't overwhelm the viewer. Bottom line - broaden the team that creates presentations to include a variety of skills, experience, and perspectives.