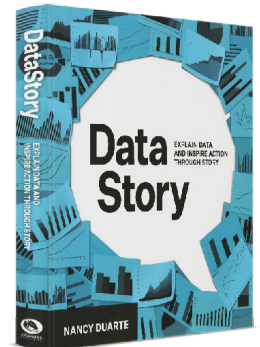


DataStory

Explain Data and Inspire Action Through Story

by **Nancy Duarte**



Contents

Part I: Communicate
Data to Others

Page 2

Part II: Bring Clarity
Through Story Structure

Page 3

Structuring an Executive
Summary as a DataStory

Page 4

Part III: Make Clear Charts
and Slides

Page 5

Part IV: Make Data Stick

Page 6

Storytelling With Data

Page 7

THE SUMMARY IN BRIEF

Organizations use data to identify problems or opportunities, but communicating well is the top skill gap in roles that involve using data. The essential skill for today's leaders is to shape data into narratives that make a clear recommendation and inspire others to act.

In *DataStory*, Nancy Duarte and her team explain the unique power of stories, which make the brain light up in ways that no other form of communication does, and how using story frameworks to communicate data will encourage others to act on your recommendations.

Duarte also decodes how the highest performing brands communicate with data, to teach you the most effective ways to turn your data into narratives that blend the power of language, numbers, and graphics. It's not about visualizing data; instead, you'll learn how to transform numbers into narratives that drive action. *DataStory* is your indispensable guide for harnessing the power of story to stand out in the age of big data.

IN THIS SUMMARY, YOU WILL LEARN:

- Why you need to communicate data effectively and how to do it.
- To craft a data point of view (DataPOV) that persuades key decision-makers.
- To structure an executive summary as a DataStory.
- To make data stick by making it relatable.

Introduction

There's nonstop buzz about data, big data, small data, deep data, thick data, and machines that are learning to analyze data. Many organizations are doing cool things that are supposed to improve our lives because of, you guessed it, data. But without identifying the story emerging from the data, it's of little to no value.

The human brain is wired to process stories. Stories engage our senses. When we find ourselves hooked to a particular storyline, that resonance begins in our brains. This is the first trigger to enabling a physical and emotional response.

Stories also bring us closer together. Spoken narrative creates a powerful connection between the storyteller and the listener. Thoughts, brain activations, and behaviors become synchronized, causing our brains to literally “tick together.”

Stories move us to feel. They have the magical ability to fully immerse listeners, making them feel like they have been transported into the narrative. When we are mentally stimulated by stories, our attention shifts away from critical thinking and becomes distracted by positive feelings.

Finally, stories move us to act. A study had people listen to a story about a father's relationship with his young, dying son. Participants were monitored before and after they heard the story, and the result showed spikes in cortisol, which focuses our attention, and oxytocin, which is connected with empathy.

The most astounding finding was that narratives can compel us into action by physically altering the chemistry in our brains. Stories that capture our attention cause us to emotionally connect with others and feel motivated to embark on a course of action.

By transforming your data into vivid scenes and structuring your delivery in the shape of a story, you will make your audience care about what your data says.

PART I: COMMUNICATE DATA TO OTHERS

Becoming a Communicator of Data

Virtually every company in every industry already has access to vast stores of intelligent data that can offer a competitive advantage. We can use data to invent new business models, help employees become more productive, and improve customer experiences.

The challenge of collecting, storing, analyzing, and providing

all of that data is daunting, and yet the bigger challenge is using the data well to drive decisions. To make sense of the overwhelming onslaught, more people in a greater number of roles must understand how to leverage the various kinds of data at their disposal and bring the findings to life. Executives must constantly make decisions based largely upon data analysis. They want it presented to them in an expert manner.

Maybe you spend much of your time diving into pools of raw data looking for patterns or potential problems and opportunities, crisscrossing through tables, and pulling nectar of insights from charts. That work can be wonderfully energizing. You can feel like a detective let loose in a *Choose Your Own Adventure* book.

But for those who'd like to move into roles that help determine what an organization should do in light of data findings, they must develop communication skills. You must learn how to communicate where data is suggesting the organization should go.

The Data Doesn't Speak For Itself

Making a recommendation requires that you first judge the data: A chart goes up. Was that good? Was it expected? Should we keep going in this direction, or change course? Do we have all the data we need to make a good decision?

Then you've got to construct a point of view based upon your conclusions. Communicating that point of view takes guts. For some of you, it will be crossing a chasm in your career, taking a leap into an exciting but perhaps nerve-racking position of greater responsibility. Making a recommendation comes with great responsibility but also accountability. How well you present a case can be a make-or-break, career-defining moment. If you learn to present recommendations well, you will become a trusted advisor.

Even with so much data at hand now, we're not always going to be able to find definitive support for decisions within it. Almost all data is historical—a record of what has already happened. It's a recording of what was or what is, not what could be. That means you need to use creative thinking and problem-solving to help shape the future state.

We've all heard the phrase “the data speaks for itself,” but the truth is, it almost never communicates clearly for itself. We have to give it a voice.

Making a good recommendation involves more than presenting data that proves—or disproves—your hypothesis. That's just a starting point. A recommendation then takes

When you see your insights coming alive for people and inspiring them to action, it's deeply satisfying.

the creative step of proposing which action should be taken, and a good one makes a persuasive case for that action. This involves taking a big leap from making sense out of data to telling a meaningful story with it. You narrate the story the data has led you to.

If you have been operating in a well-worn mental groove of analytical thinking, you may feel a bit out of your element at first. But stepping out of an analytical mindset and into creative mode is highly energizing and fulfilling. When you see your insights coming alive for people and inspiring them to action, it's deeply satisfying.

Communicating to Decision-Makers

When preparing to communicate data, think through who will be involved in its approval, and tailor your approach to appeal to them. Consider carefully what different audiences need to hear and how they want to hear it. Whenever your audience changes, so should the language you use.

Here, the focus is on making recommendations to executive decision-makers. They're the toughest customers and the ones people are generally the most intent to learn how to appeal to. Once you know the best approaches for persuading them, you can easily draw upon these elements for recommendations you make to anyone.

Executives are under incredible pressure to perform. No single job description covers the responsibilities of every executive at all organizations, but performance is almost universally assessed according to six primary levers of performance: revenue and profit, market share, retention, costs, time to market, and risk.

All these executive levers are measurable with key performance indicators (KPIs), and almost all KPIs fall into one or more of these areas. If your recommendation is destined for the desk of an executive, it should propose improvement in one of these categories. Addressing these areas will ensure that executives see its value, and they'll be able to tell right away why they have to be involved in approving it.

Understand How Executives Consume Information

Executives have personal preferences in how they receive recommendations. To communicate to them, find someone who can mentor you in understanding these preferences.

If an executive wants you to make a stand-and-deliver presentation, make sure you also have a Slidedoc. A Slidedoc uses presentation software to make a visual document that can be easily skimmed and understood quickly, with clear hierarchy. They might ask for details afterward.

If they prefer a conversation, do not wing it. Think through the key points you need to make, and structure your discussion well. This creates a mental guide of what to say. A single-page recommendation is a great attachment to an email or complement to a conversation. This should be a very tight, visual overview of your thinking so you have time for discussion.

If you are asked to present a recommendation to an executive, you must be prepared to be interrupted before you finish. Way before you finish. Most executives are in positions of leadership because they can swiftly assess information and challenge it well. In an effort to be expedient, they will cut in to gain clarity on the full picture of what you're suggesting and how well you've thought it through.

Most executive meetings get chopped into half-hour increments, so a good general rule is to formally prepare only 15 minutes so you have time for questions.

PART II: BRING CLARITY THROUGH STORY STRUCTURE

Crafting a Data Point of View

As you explore data, you'll begin to formulate thoughts about what it's telling you. A point of view will emerge from your deep thinking. Once you've taken a clear stance on what you've found, you're ready to construct a data point of view (DataPOV™).

A DataPOV should be structured as a Big Idea. A Big Idea comprises two parts:

- **Your unique point of view requires action.**

Whatever the data is telling you, it's speaking to you. You dove deep into the data to gain perspective. You made nuanced observations, and the understanding you developed about what needs to be done and how to do it is yours. Own it by expressing a point of view and clearly stating the action called for.

- **What is at stake.** You also need to propose what is at stake, whether your recommendation is approved or not. There is some cost, whether human or financial, to every recommendation. Articulating the stakes clarifies the benefit and risk inherent to a recommendation.

Your DataPOV is the centerpiece of your entire recommendation, and all other material you present stands in support of it. Make your DataPOV clear by expressing it in a complete, well-constructed sentence. The DataPOV becomes the title page of your recommendation, and you'll use it as the title of your Slidedoc. This way, people will know right away what your recommendation is about, and you'll construct a thoughtful, logical structure to support it.

Choose the Most Effective Action For Your DataPOV.

Choosing the best verbs for expressing your DataPOV will make it clear exactly which action you're recommending. The verbs associated with data have three distinct modalities:

- **Change**—We need to change who we are or what we are doing. Choose a “change” verb (“expand,” “prevent,” “adopt”) if your recommendation is about transformation. It could be a big change or a small change.
- **Continue**—We need to keep going in the same direction. Choose a “continue” verb (“endure,” “maintain,” “prolong”) if your recommendation is about endurance. These verbs are in no way a cop-out. Sometimes, full speed ahead is a great course of action.
- **Finish**—We need to complete this. Choose a “finish” verb (“release,” “attain,” “solve”) if your recommendation is about completion. Sometimes, completion is about accomplishing a goal, and at other times, it is about calling it quits.

Structuring an Executive Summary as a DataStory

One powerful attribute of stories is how they are structured. Whether it's a personal story told over dinner or one from

classical literature or a movie, stories told well usually have a similar three-act structure.

Act I presents the situation. The main character is introduced in their environment, and their current circumstances are made clear. Act II presents the complication, or messy middle. An adversarial force is introduced, and the hero attempts to resolve the central conflict. They are building the new skills necessary to overcome the adversary. Act III presents the resolution. The hero confronts the adversarial force and resolves the central conflict. The hero overcomes the challenge or learns new skills that transform them.

Write an Executive Summary in Three Acts

One of the most important pages in your recommendation is the executive summary, because it is your first interaction with your readers. Their decision to continue reading depends upon their impression of your executive summary.

The rise and fall in a story arc can be applied to the way you structure an executive summary. This construction is called the DataStory.

Act I introduces the situation in which your organization currently finds itself. There is a problem or opportunity identified in the data. For example, “The average subscription renewal rate per region is 62 percent.”

In Act II, the middle of the DataStory reveals the central conflict. The data reveals measurable symptoms that must change in some way. For example, “Only 23 percent of clients in the western region renew their subscriptions.” What's the measurement that will be reversed if your recommendation is approved? Or, what are the numbers that will increase with the new opportunity?

That is where the “mess” is. Reversing a number or hitting the gas pedal on a number creates a lot of work, because it requires someone to take action. The numbers in the middle of your story will change direction when the right actions are taken.

In Act III, the end of the DataStory is your point of view for how to solve the messy middle and create a positive outcome in the future. The actions proposed will transform your future data. For example, “We need to tailor our content to appeal to regional preferences to gain market share in the west.” Notice how the third act is your DataPOV. It states how you'd like the DataStory to end.

Creating Action Through Analytical Structure

Proposing a recommendation that combines the familiar structure of story with the strength and credibility of logic will clarify the decision you are trying to derive from the data.

Crafting a recommendation for approval is a blend of argumentative and persuasive writing. Why? You are not just trying to prove you have your facts right (argumentation). You are also trying to move others to action (persuasion). A written recommendation from data blends a bit from both types of appeals.

For gaining buy-in, clarity always outperforms cool.

You cannot submit a recommendation to an executive (or anyone, for that matter) if it doesn't have an intuitively logical structure. Without clear logic, your recommendation will take time for others to make sense of, and you will undermine your case.

Your structure itself communicates a message about what's important, and in what order. Crafting a good structure helps others see the logic in your thinking, and the process actually strengthens your own thought process. The most widely used structuring devices are an outline or a tree structure.

A Recommendation Tree

In the tree structure, all supporting information hangs off a single topic at the top. In a Recommendation Tree, that unifying point is your DataPOV. All the points below cascade from it. Using a tree structure helps you look at the whole without getting lost in the parts. This format also helps filter out any tangential subtopics that don't directly support your DataPOV.

Consider using a Recommendation Tree in which the DataStory is supported by three points. We've been conditioned since we were young to use three supporting points. It follows classic, logical argumentation and even basic essay-writing.

Define actions to support your DataStory. The best way to support the action you are recommending is to break it into smaller actions. When you run (verb), you must swing your arms, pump your legs, and breathe through your lungs. Those are all sub-actions. The way to get traction on your DataStory is to use a series of phrases with verbs to support your main, proposed action.

Motivate by explaining why. The people on the receiving end of your recommendation may well be the very ones who have to do the things you recommend. They're going to want you to persuasively tell them why the action is necessary. If you explain clearly why it's important, your suggestion is more likely to get traction.

Include assumptions by stating "This is true if..." When using data to predict potential outcomes, you are making a case based on conjecture, inference, speculation, and sheer guesswork. Due to the subjective nature of business assumptions, it's crucial to be transparent about all of those you've made in arriving at your recommendation.

For example, in order to forecast your organization's profit over the next five years, you may make assumptions about factors that impact your finances. Your conclusion may be based upon assumptions like interest rates staying constant, donors continuing at current giving rates, or office vacancies remaining high in your area.

Executives are well aware that in order to make predictions with data, we often have to make assumptions like the ones listed above. They'll be impressed that you are up front about them, and that they don't have to ask what they are. Also be prepared to justify them. Otherwise, your recommendation will come into question.

PART III: MAKE CLEAR CHARTS AND SLIDES

Choosing Charts and Writing Observations

It's important to choose the best type of chart for communicating insights. Many beautiful and engaging ways to plot charts are available today. Huge databases with stunning visual intelligence can display data that whooshes across screens, unveiling clickable layers of data beneath it. As data sets grow ever more vast, charts are getting more complex and sexy.

The use of complex charts and fancy-schmancy business intelligence tools helps uncover insights, but when it comes to

explaining the action you are advising, you must share your findings in a visually simple way. For gaining buy-in, clarity always outperforms cool.

Don't disregard all the breathtaking business intelligence tools you may have. Use them to aggregate and explore data. But then articulate your observations in the simplest form that will showcase the key points. This is usually done with a bar, pie, or line chart. Using charts that are more complex than they need to be adds mental labor to the reviewer and pulls attention away from the key insight.

Write Clear Chart Titles and Make Descriptive Observations

Chart titles are to be factual and neutral. To write one, you need to convey what, how, and when measurement happened. Organizations track concrete nouns (people, places, things) and abstract nouns (ideas) to monitor the health of the organization.

A precise understanding of what you have measured is vital. For example, are you measuring the quantity of customers, or are you measuring the percentage of online customers who also shop at your retail store? This clarity must be captured in the title of your chart. For example, "2019 Monthly Profit by Percentage" is a neutral chart title, but "We hit our profit goal this year!" is not.

If chart titles are factual and neutral, an observation is a statement of insight you have from a chart. An observation supports your perception of the problem or opportunity in the data. It is an additional short statement that frames the chart. It could be placed above the chart title, used as a slide title, or inserted as a major subhead within a Slidedoc. For example, an observation is "Female CEOs of public companies spiked in 2017." The framing of an observation tells the readers what to focus on.

Building a Skimmable Slidedoc

In our time-strapped world, people prefer information that can be consumed quickly. A Slidedoc is a visual document designed for quick consumption. It is intended to be read and distributed versus presented. You can create highly effective ones with presentation software.

Many executives like receiving content in slide format, because it constrains the amount of detail you can provide. Chunking content into slides makes reading efficient, and encourages the author to exercise great discipline in terms of being concise.

Many executives say "Send me five slides" when they want insights from you, and they are usually looking for a succinct Slidedoc to read. Because you won't be presenting it, a Slidedoc must contain enough meaty information to be a piece of standalone communication that can be consumed quickly.

Think of a Slidedoc as a visual book. Slidedocs borrow aspects from well-designed books and follow long-established formats. Because a Slidedoc is visual and skimmable, you can also think of them a bit like magazines, in which visual hierarchy is paramount.

The components of a book that precede the main text are collectively called the front matter. First comes your cover page, which is an opportunity to convey a message right off the bat. How many times have you picked up a book just because it had a great title? The cover includes a title, your name, and the date of completion. The title and possible subtitle should be a tight, snappy version of your recommendation.

Your table of contents (TOC) allows your reader to get a quick overview of the structure and understand the gist of what the recommendation is about. You should also include page numbers so readers can jump to the sections they feel need the most attention from them. If the body of your Slidedoc is fewer than 10 slides, you might opt to forego a TOC.

The next slide should be an executive summary. Don't use bullet points. Write text in full sentences to convey complete thoughts.

Organize content to be readable. Slidedoc layouts consist of four elements: data, images, diagrams, and text. For the layout of each slide, your content must be organized with a clear visual hierarchy that conveys what to read first and where to go from there. Take the time to highlight sections of text on each page so readers notice the important bits.

PART IV: MAKE DATA STICK

Marveling at the Magnitude

We use numbers at very large and very tiny scales that humans sometimes struggle to understand. In 2004, Facebook hit 2 billion users. In 2018, Apple became the first public company with a net worth of \$1 trillion. In December 2018, the U.S. national debt hit \$21.97 trillion. How do we make sense of these sums? How can we envision how large or small something is that we can't even see with the naked eye?

To help your audience understand the magnitude of the

Empathetically understanding the people whose actions generate your data helps guide you to better communicate with them.

data, compare it to things that are familiar to them. Data should always be precise. When trying to help others understand magnitude, though, exactitude isn't the point. You want to find an approximate comparison to convey the scale of the number quickly.

The common ways people sense scale are size, distance, time, and speed. For example, many charts measure quantities. If a number on your axis is a million or more, convert it into the size of something. For example, if sales of your product dropped by a million units, maybe that much product would fill half of the glassy high-rise your sales team sits in.

Time and speed are often related to one another in our lives, so they are good sources for comparison. For example, a good way to convey a distance is to say how long it would take to drive there at the familiar speed of a car or airplane, because $\text{time} \times \text{speed} = \text{distance}$. According to cosmologist Fred Hoyle, if you drove a car upward at 60 mph, in about an hour, you'd be in space. To get to the Moon, it'd take 4,000 hours of nonstop driving (or almost half a year).

Humanizing Data

Some data has nothing to do with humans, but most does. Most organizational data wouldn't exist without humans generating it. We are buying and selling goods, clicking on links, wearing devices, undergoing medical tests, selling homes, etc. You can find life experiences within the data of almost every chart.

Empathetically understanding the people whose actions generate your data helps guide you to better communicate with them. Think of them as characters in your DataStory. They either help the organization achieve your goals, or contribute to falling short of them. They are, in other words, either heroes or adversaries of your data.

In storytelling, a hero usually has a goal or desire they'd like to fulfill. In a DataStory, the hero plays a role in moving the data in a desirable direction. The hero could be a customer, user, employee, partner, donor, voter, or patient.

The adversary thwarts the hero or has a competing goal the hero must prevent the adversary from achieving. They throw roadblocks in the way of achieving the goal. In a DataStory, the adversary could be competitors, the media, an activist, investor, a mindset.

You identify the adversary by understanding the type of conflict your hero is experiencing. The hero in your data could be in conflict with a person, group, way of thinking, or system that creates a roadblock for them. Roadblocks come in many shapes, such as fear, bureaucracy, technology, bias, and even cancer cells. The way you communicate can rally the hero to overcome an adversary pushing data in an undesirable direction.

Speak With the Characters

Data tells you what has happened in the past, but doesn't always tell you why unless you talk to the heroes generating the data or the adversaries against it. The best way to really understand your heroes and learn about their issues is to speak with a number of them.

Identify a random sampling of data heroes and speak with them, asking about concerns, opinions, and motivations. Talking to them reveals their adversary in a way quantitative data can't. With such powerful technological tools for probing into data, it's easy to lose sight of the fact that it represents the desires, pursuits, and problems of individual people.

Storytelling With Data

Almost every recommendation requires a group of people to execute it, whether that's peers in your department, the executive team, or a broader audience. If you need to influence a department, customer, shareholder, or the entire company, you'll likely be asked to give a formal presentation.

When you have the stage, you can use cinematic design and storytelling techniques to make a presentation dynamic, revealing insights in a dramatic fashion. Make your DataStory truly come alive by creating suspense and telling an intriguing story with some elements of mystery. By strategically

withholding key features of your findings at first, you can give the audience an exciting jolt of surprise with a big reveal.

Let's say your team has worked very hard, and you're about to present the results. You can create suspense by having each bar in a chart revealed one at a time. If the team is unaware of the final outcome, this lets you set up how messy it's been and how hard they have worked. Then the team rejoices when they see the final, positive outcome.

Two ways to surprise an audience are to add context to the data, which may give your data a strikingly different meaning, and to zoom in or out of the data, to reveal a hidden feature of a chart or axis that shows an unexpected result.

A DataStory Wins an Academy Award

Who would have thought a movie about a slideshow full of data would win an Academy Award? During the documentary *An Inconvenient Truth*, the producers revealed data in an unprecedented way. Former U.S. vice president Al Gore delivered the presentation in a small studio in southern California. The producers commissioned a custom, 90-foot-wide, digital screen for the movie, and Gore stunned the audience with a startling reveal.

The primary screen was so big that Gore had to get on a scissor lift to point to a rising red line depicting the increase in atmospheric carbon dioxide levels predicted for future years. As the line ascended higher and higher, the audience could see the end of the rise was imminent when a yellow dot was displayed. After all, the screen only went so high.

What they didn't know was that the production team had built a secret screen above the 90-foot screen, which was hidden behind the stage drapery. The audience gasped as

Gore continued to ascend on the lift as the extra screen was revealed, showing the shocking additional rise in carbon dioxide all the way to 2056.

We are only in the formative phase of the ways in which data will change our lives, and it needs the help of a communicator. Transforming numbers into narratives will become part of every leader's job.

We rely on data to tell us what has happened and stories to tell us what it means. Words are powerful. Skillfully wielding them only comes with practice.

As you journey through your career, may you master the science of data and the art of communicating it.

IF YOU LIKED THIS SUMMARY, YOU MIGHT ALSO LIKE:

- *Resonate: Present Visual Stories That Transform Audiences* by Nancy Duarte
- *Let the Story Do the Work: The Art of Storytelling for Business Success* by Esther K. Choy



Nancy Duarte is a communication expert who has been featured in *Fortune*, *Time Magazine*, *Forbes*, *Fast Company*, *Wired*, *Wall Street Journal*, *New York Times*, *LA Times*, and on CNN. Her firm, Duarte, Inc., is the global leader behind some of the most influential visual messages in business and culture. As a persuasion expert, she cracked the code for effectively incorporating story patterns into business communications. She's written five best-selling books, four of which have won awards.

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