

Data Visualization, Part 1: Pre-Reading

How to tell your story with AI

What is data storytelling?

Communicating complex information in a way that is easy to understand and memorable, to help audiences make better decisions and take action.

There are three parts.

The first is DATA. Data is your numbers, your facts, your evidence. It is the raw material. On its own, data just sits there - a spreadsheet, a table, a list of percentages. Data alone does not convince anyone of anything.

The second is STORY. Story is the meaning - the "so what." It is the sentence you can say about the data. Not just "teen mental health issues are rising," but "teen mental health issues have increased 47% in three years and our city is above the national average." That is a story. It has direction. It has stakes.

The third is ACTION. Action is what you want your audience to do or believe after they see your data. For you, in your pitch, the action is: believe that this problem is real, believe that it is serious, and believe that your team is the right team to solve it.

What is data visualization? The graphical organization of information - using charts, graphs, and maps - to make it easier to see patterns, trends, and outliers.

In plain language: instead of putting your data in a table that nobody reads, you turn it into a picture. And the right picture makes your data impossible to ignore.

You have four major chart types to know.

BAR or COLUMN CHARTS - use these when you are comparing categories side by side. If you want to show that your city has higher diabetes rates than three neighboring cities, that is a bar chart.

LINE CHARTS - use these when you are showing change over time. If you want to show that food insecurity in your zip code has increased every year for five years, that is a line chart.

PIE or DONUT CHARTS - use these when you are showing parts of a whole. What percentage of survey respondents said they could not afford medication? A pie chart can show that. One warning: only use a pie chart if you have fewer than five slices. More than that, and it becomes impossible to read.

TABLES and MAPS - tables are great for detailed data where you want to show multiple data points at once. Maps are powerful when geography is the point - if your problem is concentrated in a specific neighborhood or region, a map makes that visible instantly.

Why data storytelling matters

The headline is: clear data convinces audiences. Your audience, they all want evidence. They do not want enthusiasm. They want proof.

Think about any great pitch you have ever seen. Whether it is Shark Tank, or a TED Talk, or a news story about a startup - what do all of them have? Numbers. Visuals. Evidence. Not just someone saying "trust me, this problem is serious." They show you.

A good visualization also builds credibility. When you show a sourced, well-labeled chart, you signal that you did your research. You are not just guessing that the problem exists - you have evidence.

Created in partnership with the Mark Cuban Foundation, markcubanai.org