7 data visualizations you’re not using enough.
A picture is worth a thousand words.

But in the case of dashboards, pictures can quickly translate into thousands of dollars. Information is arguably better absorbed through vivid visualizations as opposed to monotonous grids, as visualizations can address the scope and dimensions of underlying data in a succinct and digestible format.

Businesses today rely on a myriad of charts and graphs that go beyond the traditional bars, pies, and gauges to convey information. Modern visualizations have pushed analytics to new levels, and organizations can publish information in unique, highly-visual representations. Open source libraries including D3, Google Charts, and Highcharts have presented creative options for business analysts wanting to design intuitive dashboards that convey complex information effectively to enable quick decision making.

If the charts and graphs you currently use aren’t cutting it, here are seven visualizations that can bring new meaning and purpose to your dashboards.
Previously just a tool for navigation, today’s maps are able to delineate data on top of political or geographical boundaries. Information can be illustrated through points, lines, area patterns, and colors. Combining maps with data, geo-visualizations easily mesh quantitative and qualitative data together. In an increasingly interconnected world, maps have become more relevant to the modern user to identify where activity occurs at any point in time. They seamlessly relate these elements to one another and facilitate the recognition of distribution patterns or network relationships. Maps also hold the power of dimension because they support the addition of chart and graph layers on top of geographical interfaces.

IN THE DATA PANEL

• **Geo attribute or longitude/latitude.** This identifies the specified geographic information.

• **One metric.** Color or size can add dimension to your map.

**USE CASES**

• Which locations are my lowest performing offices?
• Where are the top sites to launch the next product?
• How do North American sales compare to EMEA for 2016?
• Based on regional density and average income, where should airlines increase operations?

Try maps for yourself with MicroStrategy Desktop.
The power of combining context with the current state of business makes the bullet chart hard to overlook. This visualization mimics the simplicity of a bar chart by displaying a single measure, but it adds value with additional qualitative measures that provide information for comparison. It harnesses the functionality of a bar graph with the simplicity of a gauge chart and is ideal for rapid monitoring or when dashboards have limited space to convey information.

**USE CASES**

- How do product defects this week compare against quality baseline?
- Did we reach our order request goals for this quarter?
- Did our call centers’ call volume meet its targets this month?

Download the bullet chart and visualize your data with MicroStrategy Desktop.

**IN THE DATA PANEL**

- **Text label.** Defines your chart and the unit of measurement.
- **Quantitative scale.** Measures the value of your metric along a single linear axis.
- **Primary measure.** Bar representing the featured metric.
- **Comparative measures (optional).** Metric to compare against the featured metric.
- **Qualitative scale (optional).** Two to five ranges along the quantitative scale representing performance of the primary measure.

This bullet chart provides an overview of cases resolved by region and year. The orange bar represents the actual number of cases resolved, the black tick represents the target for a given region and year, and the blue colors represent the corresponding ranges.
Sankey diagrams were created to depict energy transfers between processes. Today, they can be applied to business narratives to depict the flow, transitions, and relationships among key entities. Sankey diagrams are helpful when you want to pinpoint dominant contributions within a system because they emphasize major nodes and flows within a process. They clarify where funnels of activity occur and where they are headed.

IN THE DATA PANEL

- **Two attributes.** These mark the different nodes in the diagram.
- **One metric.** This represents the width, or flow, of each node.

USE CASES

- Which airports are connection hubs with the most passenger traffic?
- What are customer online shopping habits, and how can we redesign their purchase experience?
- Which companies, industries, and locations are graduating engineering students getting jobs?

Download the Sankey diagram and visualize your data with MicroStrategy Desktop.
Mekko charts take bar charts to a new level by using space to consider two additional dimensions of a dataset. This visualization operates similarly to a stacked bar graph by breaking up a large rectangle into smaller ones. The width of a column differentiates this chart; it is proportional to its contribution across the horizontal axis variable. Meanwhile, the height of the column is proportional to the vertical axis variable. These charts are great for conducting comparisons and analyzing how a part relates to its entirety.

**IN THE DATA PANEL**

- **At least two attributes.** These are used for the horizontal and vertical axes.
- **At least two metrics.** The width of each column is determined by the value of the horizontal axis metric. The height of each segment in an individual column is determined by the value of the vertical axis metric.

**USE CASES**

- What is our current R&D spending against total budget for emerging markets?
- How is my business travel allocated across departments?
- What is our server usage like and how responsive are they across regions?
- How are our pharmaceutical drugs sales doing globally?

Download the Mekko chart and visualize your data with MicroStrategy Desktop.
Timelines walk viewers through a chronological narrative to help make sense of how events converge. This is a dashboard-friendly visualization that helps users piece together series of events to see the greater story being told.

**IN THE DATA PANEL**
- **Four attributes.** Group, member of group, beginning date, and end date.
- **One metric.**

**USE CASES**
- How many projects are currently being implemented, and what are their corresponding ages?
- How long has an employee worked at the company, and how long has she been working in her current position?
- What is the current train schedule for Manhattan?
- Which product features are going to be released in the next 24 months?

Download the timeline and visualize your data with MicroStrategy Desktop.
Boxplot

Boxplots are five number summaries grouped together to explain how far a dataset is spread out. The five numbers are the minimum, maximum, median (the middle of an ordered dataset), first quartile (also known as the 25th percentile), and third quartile (also known as the 75th percentile). They can be vertically or horizontally represented and display elements of data distributions that identify skewness and outliers. Boxplots are useful when you want to examine one or more datasets graphically, making them best for comparison purposes or trend analysis.

Tail points from end-to-end tell you the range of your data. The boxes show where most of your data sits. Skewness is determined by viewing boxplot whiskers to see if data is congregating in one direction compared to the other.

**IN THE DATA PANEL**

- Two attributes.
- One metric.

**USE CASES**

- How do student grades for Economics 101 this semester compare to last year’s fall class?
- What is the average median deal size and how does it change from quarter to quarter?
- What are healthcare costs like by age, diagnosis, or gender?

Download the boxplot and visualize your data with MicroStrategy Desktop.
This annotation chart focuses on the time period from May 10 to June 3. This food and beverage company had an extreme dip in sales on May 12 due to closing down to exterminate a bug infestation, which is notated in the column on the right. Meanwhile, sales shot up on May 22 because of a President’s Day promotion offering free milkshakes.

**Line charts** are often used by business analysts because they easily recognize clear trends over defined time periods. When multiple datasets are involved, line charts are useful for comparing highs and lows in the same time period. Annotation charts take line charts a step further by providing interactive capabilities through notes and annotations that correspond to specific data points on the side panel. These add significant value, providing relevant information in a clear and concise format.

**IN THE DATA PANEL**

- **One attribute.** Units of time (day, week, month, etc.).
- **One metric.** This is used to place annotations into the visualization.

**USE CASES**

- Why are there steep differences between my net sales across the last three months?
- How do regions compare in customer responsiveness for my current marketing campaign?
- Why is the student enrollment rate for Intro to Economics this semester particularly high?

Download the annotation chart and visualize your data with MicroStrategy Desktop.
Download MicroStrategy Desktop to tell your story through these unique visualizations.

microstrategy.com/us/desktop