Here's the interactive version, hover or tap on the charts to compare their values

Tool: Tableau

Source: Forbes via Wikipedia

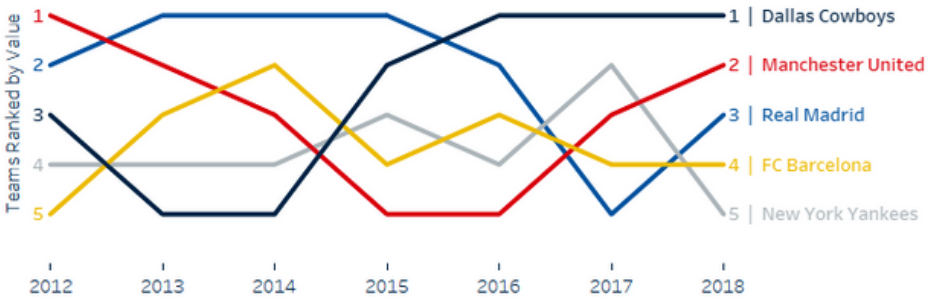
Data visualization reveals unnoticed information, especially in large data sets; gives answers faster; and helps readers investigate the cause-effect relationship. Data visualization let us see things that would rather go unnoticed. Any data contain information but if there's no visual data you're missing out on trends, behavior patterns, and dependencies. Visualization gives answers faster. Looking at a graph and identifying a trend is an instant. And good visualization gives way to research data, to play with them, to investigate some curious cause-effect relationships. This is very important for investigation and research work, as in journalism.

This data visualization implemented Tableau to analyze the data from *Forbes'* list of the most valuable sports teams (https://en.wikipedia.org/wiki/Forbes%27_list_of_the_most_valuable_sports_team). It also provided an interactive version (https://public.tableau.com/views/TheMostValuableTeams/MVT?:embed=y&:display_count=yes&:showVizHome=no).

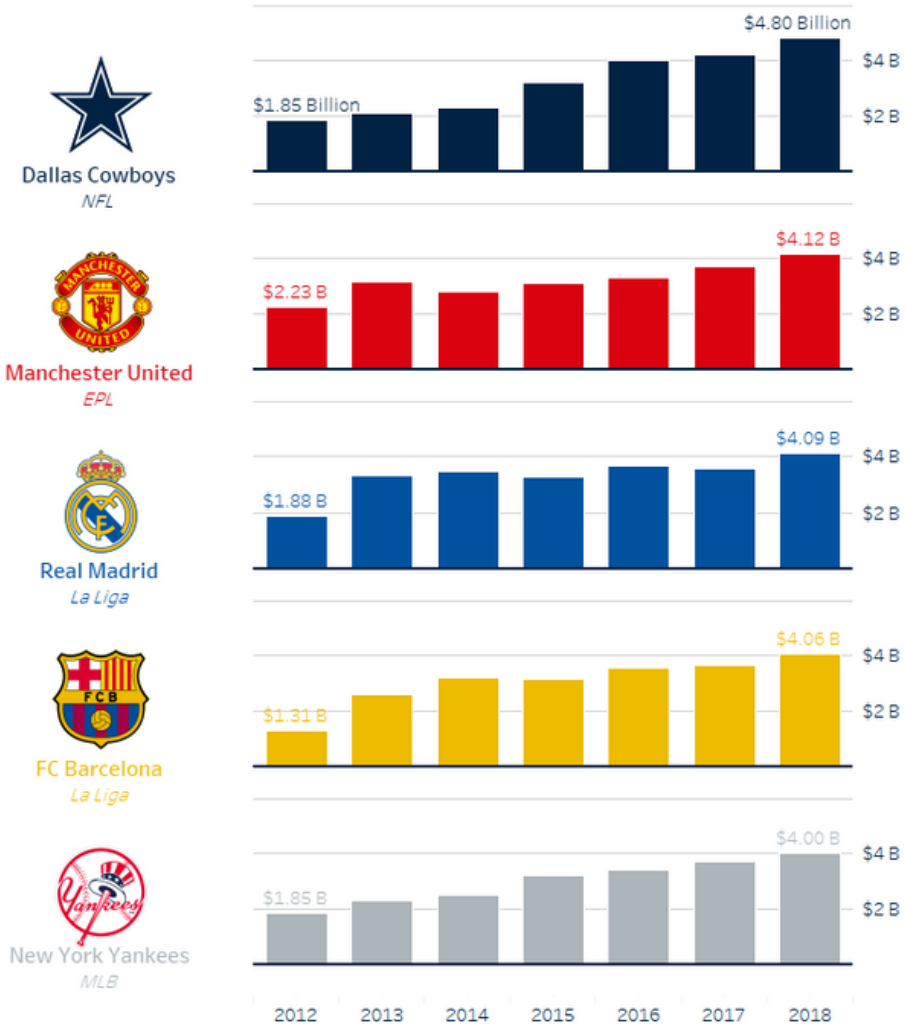
Here, I will analyze the data visualization from "r/dataisbeautiful" based on the five qualities of great visualizations:^[Drawn from chapter 2 of *The Truthful Art: Data, charts, and maps for communication* by Alberto Cairo.]

The Most Valuable Teams

The teams ranked in the top 5 haven't changed for seven years



By 2018, all of the top 5 are valued at over $4 Billion



Daniel Caroli | @Danifornication

Is it truthful?

A good visualization needs to be based on good data and to manage that data properly, making sure that it doesn't have errors. So truthful comes first. Overall, this data visualization is truthful based on the dataset it used. Firstly, it presents the top 5 valuable sports teams from 2012 to 2018: Dallas Cowboys, Manchester United, Real Madrid, FC Barcelona, and New York Yankees. Interestingly, the teams ranked in the top 5 haven't changed for seven years. Secondly, it actually measures what the authors do think they are measuring. The data visualization shows in two parts. The first part is the line chart from 2012 to 2018. The x-axis is the year and y-axis is the teams' value. The second part presents the value of each team in detail. It is shown that all top 5 teams are valued over $4 billion by 2018.

However, there are still some minor defects exist in this data visualization. The Wikipedia actually shows 9 years data from 2010 to 2018. And top 5 most valuable teams in 2010 and 2012 differs from that from 2012 to 2018. In 2010, Washington Redskins and New England Patriots ranked in top 5 while Real Madrid and FC Barcelona didn't. In 2011, New England Patriots pushed down by Real Madrid. If the data visualization considers for a longer period, things may be different. This should be interesting phenomena since it demonstrates the variation of the valued teams. The lack of data in 2010 and 2011 makes the brief description "the teams ranked in the top 5 haven't changed for seven years" a little bit misleading.

Is it functional?

Functional comes second because a data visualization needs to be clear and deliver the information correctly. From my perspective, this data visualization meets this requirement. It uses the Tableau tool and provides an interactive version. The static

version presents the main information covered in the dataset while the interactive version clearly conveys more details. In other words, the static version tells us top valued teams and their variation trends at first glance. If the reader wants more details, they just need to move the mouse over the graph to get going, in turn, knowing specific data for each team per year. For example, Dallas Cowboy valued $2.3 billion in 2017, which is the first sports team that valued over $4 billion. The interactive data visualization is novel and useful.

However, this function may not work in some circumstances. For example, if the reader is in condition without an actual network connection or live set-up, they may not gain detailed information they want. On the other hand, if the author holds a presentation, the interactive version may be invalid in PowerPoint or other presentation programs.

Is it beautiful?

From my perspective, these graphs present elegant and well designed in terms of the use of typography, color, and composition, even though it is something that scientists and statisticians tend to dismiss a little bit and forget a little bit. Everything from the typography to the icons, and from the toolbar to the windows, has been refined with some extra detail, polish, and shadows. The color is chosen meticulously since it incorporates the universal symbol of each team. Team Logo is presented as well thus fans could easily figure out teams without text description. The grid and axis give a clean and minimalist version for the amount of value.

Is it insightful?

Data visualization needs to reveal something meaningful and increases audiences' understanding of a particular issue. And insight is the discovery of non-trivial, complex, deep, unexpected, or relevant truths about the information. This graph is not academic results presentation but fact description for the general public. Thus it provides an insightful version for audiences to comprehend information quickly. By using graphical representations of value date, audiences are able to see the rank and amount of top teams in clear, cohesive ways. "Which sports team values most?" It's much quicker to find that out looking at the graph than reading and comparing rows of number in the table. However, it would be better if it provides more information about each team. For example, the country and kinds of the sports team. In this way, audiences who never know these teams would capture the whole big picture.

Is it enlightening?

The enlightening part is in the sense of deeply changing readers' minds for the better because it makes them more informed readers. A good visualization should communicate those insights to audiences. Overall, this visualization performs while in enlightening. It uses charts and graphs visually impactful representations of data to help audiences engage the hidden story. Audiences may ask follow up questions. For example, "Why European association football clubs take the top spots?" "Why the Cowboys is so valuable and what's the specific draw to the Cowboys?" It enlightens people dive into more details behind the data.

On the whole, this data visualization is truthful, functional, beautiful, insightful and enlightening. However, it could improve by adding more years and specify countries.