

# Example of essay on data visualization

[Science](#), [Statistics](#)



Data visualization is the arrangement of information, statistics or other quantifiable data in a visual manner that educates and informs the reader. Data visualization aims to bring across the meaning of narratives or presentations that are burdened with abstract or schematic information. It should clearly and effectively communicate the key aspects and provide insight through graphical methods such as: charts; bar or pie, graphs which are good for structure, relationships, plots, maps, images, animation and many others. These data visualizations, often called information graphics should effectively encapsulate the idea being conveyed, and also give perspective to the information or storyline.

Data visualization usually covers both information such as statistics or quantitative data, and scientific conceptions. Types of data visualization include scientific visualization, information visualization, and information graphics also called ' infographics'. Scientific visualization involves presenting data that has essentially correspondence of a physical or geometric nature. Which generally refers to data that has close connections to real world objectives with realistic properties. The goal of scientific visualization is to combine visual information with data that has less accessibility directly, in an effort to generate images that give greater meaning and interpretation. Scientific visualization is often used in the medical field to generate MRI scans, or the travel industry to generate air flow over an airplane wing.

Information visualization focuses on theoretical data, which provides the means for the transformation and presentation of data in a way that enables and encourages human interaction. Which means information visualization

fosters the analysis of data by means of exploration instead of only reasoning abilities. Therefore allowing users, viewers or readers to develop their understanding of the structures and connections illustrated. Information Visualization is being used extensively by people in the fields of business, media, and engineering to aid in the analysis and understanding of information. It is used broadly in many other fields like economics and finance. It utilizes mostly charts and graphics depicting statistical data, and also uses visual images or comparisons to represent different sets of data. Infographic or information graphic is a type or sub-category of visualization that incorporates a variety of statistics and visuals along with a narrative, and sometimes even persuasive elements. Infographics utilizes information, data and knowledge to present complicated information clearly and quickly, such as maps, signs, teaching material, journalism and technical writing. Information graphics brings across the key points of mathematicians, statisticians, and computer scientists in a simple comprehensive way to the reader. Today it is used vastly by the media, in manuals and road signs, in published works, and has become popular on the World Wide Web. Communicating and illustrating information that would otherwise be cumbersome in text form, thereby creating shorthand for everyday concepts, such as the road signs used daily by motorist. Infographics can be seen most commonly in newspapers depicting the weather, in site plans, and some books but mostly in children's books.

A good visualization of data should be effective in allowing the viewer to easily interpret the information. It should also be accurate by having sufficient quantitative data allowing the reader to make correct evaluations.

The choice of visualization should allow efficiency in presentation by minimizing any redundant data, unwieldy text, and unnecessary charts. Creating a visualization of data also takes into consideration the aesthetics and adoptability. The design or arrangement of the data should not be offensive to the viewer, and the design should be able to serve and adjust to multiple needs.

Data visualization is very important as its use dates as far back as the 2nd century, when Egyptians used tables to organize information on astrology to be used as a navigational tool. A table is primarily a textual illustration of data that uses visual attributes of rows and columns to arrange the data. Tables, diagrams and graphs fall into the data representation class of charts. Through visualization people are better able to see things that were not obvious before, and even with massive amounts of data patterns, trends, and key/focal points can be identified easily and quickly. Visualization continues to be of great importance as it allows the sharing of ideas to be conveyed in a common but effective manner. The factors in a situation is simplified and clarified instantaneously with the aid of data visualization, allowing individuals to share their perspective on various matters outside the scope and specialized areas of many learned individuals.

There are many graphical presentations that people can use to bring understanding to their presentations, therefore, choosing the graphics that best depicts a person's viewpoint has some technique to it. Person's that decide to use visualization should ensure they have a precise understanding of the data they wish to visualize. Then determine what aspects of the information they are presenting and the complex areas that will need to be

visualized. When designing their presentation they need to have knowledge of their audience, knowing what will appeal to that demographic. Finally, they should use simple forms of visuals that will best convey their information to their audience.

In this technological era, where people read a lot less than past eras, the use of visual aids to bring across ideas in an easily comprehensible manner is imperative. Visualization of data is becoming increasingly important to the exploration of patterns and trends in businesses, especially with the growth in e-commerce. Visualization of data lets individuals and businesses quantify vast amounts of data, quickly and efficiently to bring insights needed in decision making.

## References

- Few, Stephen. (2007). Data Visualization Past, Present, and Future. COGNOS InnovativeCenter. Retrieved from [http://www.perceptualedge.com/articles/Whitepapers/Data\\_Visualization.pdf](http://www.perceptualedge.com/articles/Whitepapers/Data_Visualization.pdf)
- Johnston, John. (n. d.). What is an Infographic? Customer Magnetism. Digital MarketingAgency. Retrieved from <http://www.customermagnetism.com/infographics/what-is-an-infographic/>
- Information Visualization and Presentation. (2014). UC Berkeley School of Information. Retrieved from <http://www.ischool.berkeley.edu/courses/i247>
- Stasko, John. (2013). Information Visualization. Information Visualization. Retrieved from <http://www.cc.gatech.edu/~stasko/7450/>
- Ward, Matthew. (n. d.). Overview of Data Visualization. (n. p.). Retrieved from <http://web.cs.wpi.edu/~matt/courses/cs563/talks/datavis.html>
- Zoss, Angela. (2013). Introduction to Data Visualization. Dukes University <https://assignbuster.com/example-of-essay-on-data-visualization/>

Libraries. Retrieved from <http://guides.library.duke.edu/content.php?pid=355157&sid=2904817>