eBook

MSRcosmos
PROMISE DELIVERED

DATA VISUALIZATION
A GUIDE FOR TOP BEST PRACTICES

TABLE OF CONTENTS

INTRODUCTION

Data visualization is the visual representation of both qualitative and quantitative data. It is the translation of raw data into visually appealing forms that allows us to have better insights about the data being dealt with. With interactive stories and dashboards, we see, observe and analyze facts which otherwise are barely noticed.

As rightly said, languages may be a barrier to communication but pictures and icons don't fail to communicate what is intended, if represented in an appropriate manner.

Visualization makes it easier for the human brain to grasp information. Thus, giving popularity to numerous 2D and 3D data visualization tools such as Power BI, Tableau, Echart, Fine BI, Highchart, FineReport, and so on.

Graphics increase the readability of data and makes analytics quick, frequent and better. A clear, accurate and succinct visualization goes a long way in achieving the above said. Following certain guidelines can make the process of visualization fruitful.

9 BEST PRACTICES
FOR DATA VISUALIZATION

We have listed top 9 best practices for data visualization

to help you tell an understandable, effective and impactful story with your data. With these guidelines, you can not only make your presentation interesting, but also gain better insights.

1. KNOW YOUR AUDIENCE

Knowing your audience and their needs is the first important step towards building a comprehensive visualization of data. It sets the foundation for all the other steps that follow. One should know what their audience is looking to gain insight about, before offering it to them.

When you have your goal clear in mind, you can then work towards highlighting the key elements that synchronize with it. Knowing the level of understanding of your audience is a plus. That way, you can use only those graphs and patterns that serve them well. Without proper understanding of the target audience's goal, any visualization is pointless.

2. KEEP IT SIMPLE

Simplicity in visualization is the key when it comes to complex raw data. Make your story as simple to understand as possible.

Choose readable fonts instead of going for fancy ones. Keep the fonts and font size constant for all graphs and charts in a dashboard.

This will create uniformity and give a formal look to your story. Interpretation becomes easy when fonts are in order and easily readable.

Prioritize the insight you intend to offer and arrange your charts accordingly. Make sure your data is clean before visualizing to avoid blank spaces and chaos in charts.

3. FOLLOW A COLOR PALETTE

Colors are the main ingredients to an appealing, engaging and effective visualization. By using different colors to represent different elements in a chart, you can include lot of information in a brief space. However, while doing so, you must take care your palette.

From using contrasting colors to represent different categories, to using different saturations of the same color to represent an ordinal data, everything has its own significance. Overall, is advised that a specific color palette be designed and applied on all charts and graphs so that they look uniform and attractive together on a dashboard.

A color palette also helps in distinguishing one dashboard from the other, so that you can create multiple dashboards to convey different stories as per your target.

4. USE PATTERNS

The human brain has a tendency to look for patterns in general and connect one information to the other for familiarization and better understanding. Dashboard designers can use this to their benefit.

Follow a pattern in all your visuals to make your story interpret itself. It can be a pattern in shapes, sizes, fonts, colors, type of graphs or a combination of them all. For example, if you are using rectangular boxes with black backgrounds and light-colored lines for a line chart, follow the same pattern for other line charts and a similar pattern for other kind of charts.

5. CLUSTER AND ORGANIZE

While following a pattern proves useful, clustering in combination with it manifests as an even more impactful step. The part of data that provides similar insight and works on one particular factor must be grouped together. This way, you can have a link created between different aspects of your story. Keep similar elements in close proximity.

Clustering similar factors, charts and information together helps you in choosing a suitable layout for your dashboard too.

Avoid too much overlapping of charts and give them all a decent breathing space while bringing together. Including lot of information in one story or a single dashboard may leave no distinction between clusters and make your visualization look unorderly. Include only what is essential and arrange them in an appropriate layout.
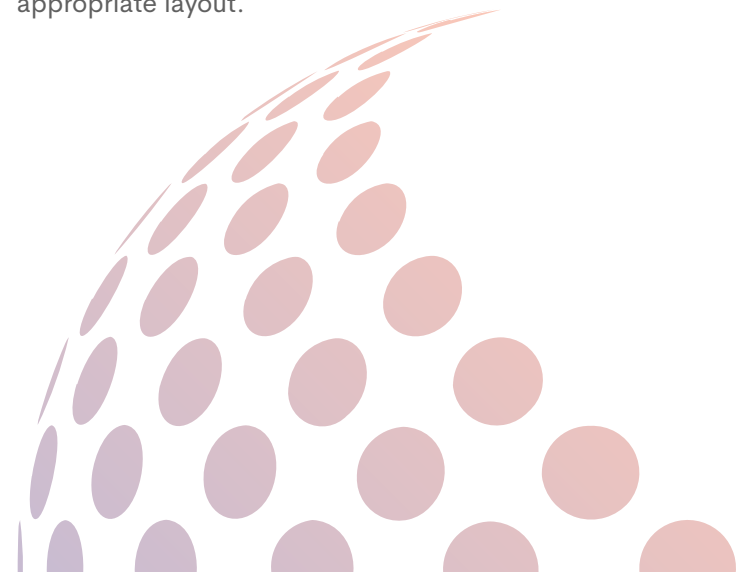
6. KNOW YOUR CHARTS

Different charts represent different information and choosing the right kind of chart may ease your work to a great extent. For example, Bar charts can be used to compare quantities of different columns whereas Pie and Donut charts can compare different sections of a data.

Scatter plots help you in displaying the correlation between two factors and Tables organize great amount of information in a brief amount of space. Area charts shade the region under a line and candle graphs show the lowest and highest value of a factor.

Use the right kind of graph and chart including labels wherever required. Labelled charts are easy to understand.

The above-mentioned charts are just some among the vast variety of options provided within visualization tools. Graphs and charts make visualization much simpler and comprehensive.

7. HIERARCHY AND CORRELATION

One must analyze things deeply in order to gain insight and predict problems even before they arise, in order to stay ahead in the competition.

Understanding correlations between different factors affecting a certain result in the data can help in providing a deep insight.

When we are aware of correlations, we can design an impactful dashboard and story that provides a greater perception.

Following a hierarchical order in combination with the above will ensure companies moving closer to their goals.

Hierarchy is a very important factor in visualization. Placing the most important elements at the top left corner and the elements justifying and explaining them just below, lets people see and understand intuitively.

8. MAKE INTERACTIVE DASHBOARDS

An interactive dashboard goes a long way. It grabs the attention of your viewers and keeps them on-board with every chart that is to display. Make your dashboards interact with the audience by using interesting elements, highlighting colors and most importantly, filters.

Use charts and their elements as filters to represent different aspects of a particular element within the dashboard. With this, viewers will be able to see what they are looking for, about any element, with just a click on the element in the chart.

When charts convey so much information in such small space, highlighting the general and priority points first and then providing detailed insight on a click, they become the most desired form of visualization.

9. CONSTRUCTIVE CRITICISM

Lastly, be open to positive feedback and constructive criticism. Being able to represent complex raw data effectively does not happen overnight.
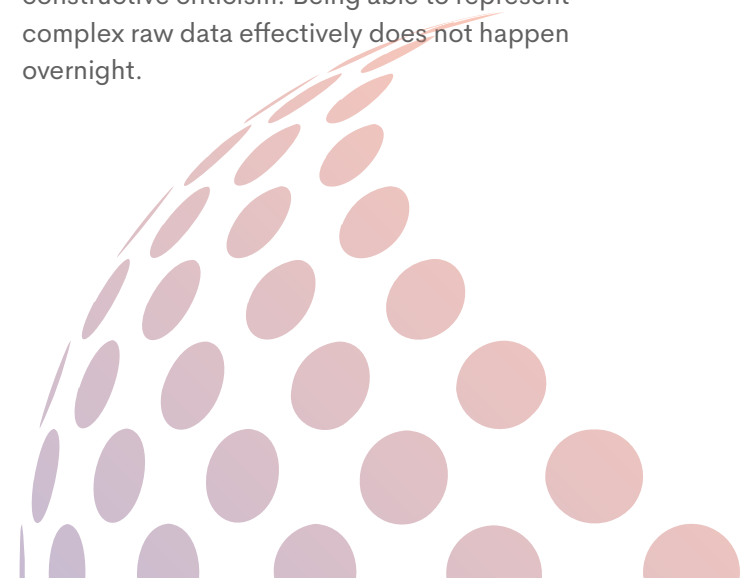
Every job has a learning curve and visualization too, takes practice.

Feel free to share your dashboards and stories with friends and colleagues and note their feedbacks. Work on your weak points and seek guidance if you may.

With customers, take their grievances into account and make corrections to your story to meet their goals. It is important to keep their objective in mind before designing a dashboard.

CONCLUSION

Data Visualization has become very important in businesses in order to make informed decisions that rely on massive data sets. There are many different visualization tools available in the market and all of the them offer a wide range of features along with their unique ones. Explore and chose the right one for yourself.

Make sure to choose a tool that can combine data from different sources, clean them and make sharing easy. A tool that provides maximum features and interactivity can yield better dashboards.

Keeping the above guidelines in mind, and work towards building your perfect story.

MSRcosmos
PROMISE DELIVERED

MSRcosmos is a fast-growing global IT services company with unmatched capabilities across the service value chain of intelligent automation, cloud, data & analytics, enterprise applications, and IT infrastructure.

"Promise delivered" is our brand proposition, orchestrated via staunch delivery commitments, path-breaking solutions, highly differentiated talent, and a methodical approach. This belief has enabled MSRcosmos to be a preferred partner of choice for many customers across diverse industries in the USA, Europe, India, and Australia.

| 2000+ Global Employees | 20+ Offices across 4 continents | 15+ Technology Partnerships | 4 Tech Pillars | 300 Happy Customers |

Corporate Headquarters
1000 N West St, #1200
Wilmington, DE 19801

Get in touch
info@msrcosmos.com
www.msrcosmos.com

USA | Canada | UK | India | Australia