**Data Viz Workshop Ideas**

<https://www.datalabsagency.com/conference-workshop-ideas/>

1. **Data Viz Tools & Techniques**

This [Data Visualization Tools & Techniques workshop](http://www.datalabsagency.com/data-visualisation-workshop-course/) empowers attendees to find, simplify, and visualize data using cutting-edge tools and techniques. And then instructs them on creating an engaging and memorable story with the power of data visualization in all its formats. The structure of Datalabs’ data visualization workshop revolves around the tools and techniques that are used for the effective communication of insights. It’s geared to those that are on the ‘front lines’, ie. analysts, marketers, researchers, content creators, or those other positions that are handling data in their everyday jobs. The business environment is changing and our workshop aims to give attendees a beginner’s skill-set for visualizing and communicating data.

**Participant outcomes:**

* learn to simplify data and understand which chart and graph types are useful for which types of data
* discover the techniques for highlighting insights and teasing out the best visuals using graphic design software
* learn to tell a compelling story with data to best communicate insights across a variety of content formats:  data presentations, animated data videos, and infographic reports

1. | **Data Viz for Modern Marketing**

Modern marketing teams need to be visual storytellers. They need to be experts in analytics. They need to be skilled in data visualization. [The Data Visualization for Modern Marketing Workshop](http://www.datalabsagency.com/data-visualisation-marketing-workshop/) can give digital marketers the inside knowledge as to how to design marketing dashboards, how to aggregate insights into exciting, visual reports, and how to choose the most effective metrics to communicate in their presentations, in their stories. Finally understand how data from SEO, email newsletters, AdWords, marketing automation software, and social media can be aggregated, simplified, and designed beautifully to gain maximum insights and efficiency.

**Participant outcomes:**

* map where your company’s marketing data is coming from and arrive at the important marketing metrics that drive your company
* learn visual methods to communicate marketing success and ways to visualize risk, alerts, and downward trending metrics effectively
* learn how to design your own interfaces, infographic reports, and dashboards

1. **Infographics Workshop**

Infographics are one of the most common forms of data visualization and communication design. They are an increasingly used form of information distribution for B2B, B2C, government & marketing. Our [Infographics Workshop](http://www.datalabsagency.com/infographic-workshop/) introduces participants to the basic principles of data visualizations. Along with its common forms, language, influences and formats. It focuses on infographic design, data, charting and tools that we use in our day to day agency work and have developed over 6 years designing infographics for clients in Australia and around the world.

**Participant outcomes:**

* learn how to construct/deconstruct an infographic
* learn the prototyping and planning process to create an infographic
* learn how to use data effectively in reporting and how to tell a story – with or without data

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1. **Infographics Workshop**

Financial data often comes from two sides: internal company financial data (you know – income and cash flow statements, balance sheets); and external financial data (hedge funds, M&A metrics, equity markets and electronic traded funds or ETFs etc.). In this Financial Data Presentation Training Workshop, we look at both sides. Participants will learn to delve deeper than your average financial report to find meaningful relationships between data, visualize risk and opportunities and turn new insight into effective financial decisions.

**Participant outcomes**:

* learn best practices used to visualize financial data across a range of tools and formats
* learn to recognize the financial metrics that minimizes costs and produces financial gain
* learn from common financial data visualization mistakes and explore the ways to make your data work for you

# **What to Look for in a Data Visualization Workshop**

1. The workshop should be based in research. The more that data visualization becomes a popular topic, the more we see subjective opinions about what makes data visualization good, bad, or ugly. Too often, those opinions are positioned as The Truth. Luckily, the more that data visualization becomes a popular topic, the more we see research conducted on it. You want a workshop that is based in the research. Your presenter should have a readily available reference list of research articles that have informed the workshop’s recommendations. Presenters with doctorate degrees in areas related to data visualization and reporting are the surest bet.
2. At the same time, the company should be known for making the workshop fun. Who wants to spend a day listening to someone walk through study after study? Ick. The presenter should be smart AND relatable. Even funny. Moreover, the workshop should be highly interactive. Get on the phone with a potential presenter and ask what kinds of activities they’ll incorporate. A phone call will also give you a good idea about the presenter’s disposition and ability to make things fun.
3. The company should have a strong, credible reputation. You should know their name by word-of-mouth. Feel free to ask for references from past clients.
4. The workshop should include some redesigns of your work. It should be customized to meet your needs. While the workshop should show examples from a broad range of industries, you should see yourself in the slides regularly.
5. The presenter should be familiar with your industry or at least willing to study in advance of the workshop. You want someone who can speak to your specific circumstances, data scenarios, metrics, and reporting methods.
6. The presenter should be demonstrably culturally competent. I followed a presenter last fall who repeatedly demeaned the women in the room. Needless to say, he was not getting invited back nor recommended to anyone else.
7. The company should have published some snippets of their ideas and philosophy, where you can get a pretty good idea of the things they’ll cover in a workshop. This doesn’t have to be in a book, per se. Look for blogs or even tweets that provide evidence of their style and thinking.
8. Relatedly, the company should have produced many examples of their own data visualizations, in print or online, so that you can see they are walking the talk. That will tell you that the workshop is likely to include their own work, which indicates they’ll have richer insight and more empathy. You do not want someone whose content is just a critique of others’ data visualizations.

**Teaching data visualization: Recommended readings and resources**

Posted on [May 2, 2014](https://www.mulinblog.com/teaching-data-visualization-recommended-readings-and-resources/) by [Mu Lin](https://www.mulinblog.com/author/mulinblog/)

I want to share the reading/resource list in my data visualization course; the list breaks into six sections: intro to data viz, choosing the right chart, designing a nice-looking visulization, communicating your message, tools/tips, and resources. This list will be a work in progress and all suggestions are welcomed.

Intro to data visualization

[A Quick Illustrated History of Visualization](http://data-art.net/resources/history_of_vis.php): Data visualization has its roots in a long historical tradition of representing information using pictures in ways that combine art, science and statistics.

[Why Data Visualization Matters?](http://www.mulinblog.com/data-visualization-matters/) Data visualization reveals unnoticed information, especially in large data sets; gives answers faster; and helps journalists investigate cause-effect relationship.

[Patterns for Information Visualization](http://www.targetprocess.com/articles/information-visualization/): in this long article, the author uses some hands-on examples to show how visualization helps people make decisions and work with data.

[Data Visualization for Human Perceptions](http://www.interaction-design.org/encyclopedia/data_visualization_for_human_perception.html): excerpt of a popular book on data visualization; with historical info and case studies.

[Storytelling: The Next Step for Visualization](http://kosara.net/papers/2013/Kosara_Computer_2013.pdf): this is a 12-page paper, in which the authors review the literature and history of presentation and storytelling in visualization, discuss examples, and outline a research program to develop storytelling as a visualization task of equal importance to exploration and analysis.

[The 5 Most Influential Data Visualizations of All Time](http://www.tableausoftware.com/sites/default/files/whitepapers/the_5_most_influential_data_visualizations_of_all_time.pdf): a free Whitepaper by Tableau Software, citing examples from the 18th and 19th centuries.

[Data Art vs. Data Visualization](http://www.perceptualedge.com/blog/?p=1245): Data art refers to visualizations that strive to entertain or to create aesthetic experiences with little concern for informing; data art is harmful when it masquerades as data visualization.

Choosing the right chart

[Visualization Options Available](http://manyeyes.com/software/analytics/manyeyes/page/Visualization_Options.html): A detailed introduction of 21 popular chart types, in six categories, by Many Eyes.

[Different Charts Tell Different Tales](http://datajournalismhandbook.org/1.0/en/delivering_data_6.html): Two of the most basic chart types are bar charts and line charts. While they are very similar in their use cases, they can also differ greatly in their meaning.

[Choose a chart type](http://office.microsoft.com/en-us/excel-help/choose-a-chart-type-RZ001109795.aspx?section=2): With so many chart types available, how do you know which is best for you? Keep in mind, the point is to get your message across in the most effective way. Check out this guide by Microsoft Office.

[Chart types and data formats](https://support.google.com/docs/topic/30240): Google has a tutorial on 17 chart types for users of Google Drive. Each chart comes with brief intro, required data format and a sample chart.

Two of the most basic chart types are bar charts and line charts. While they are very similar in their use cases, they can also differ greatly in their meaning. – See more at: http://datajournalismhandbook.org/1.0/en/delivering\_data\_6.html#sthash.ytO8c2BT.dpuf

[An Economist’s Guide to Visualizing Data](http://pubs.aeaweb.org/doi/pdfplus/10.1257/jep.28.1.209): a journal article that examines the wrong/right use of common charts.

[Visual Math Gone Wrong](http://eagereyes.org/criticism/visual-math-wrong): how a US Census Bureau visualization shows some good thinking but ultimately fails to do what it was designed to.

[Using Indexed Charts When Understanding Change](http://chandoo.org/wp/2012/10/09/indexed-charts-in-excel/): Indexed charts are useful to (a) understand change with respect to a bench mark, (b) compare values which are vastly apart and (c) understand growth (or non growth).

[Stacked Area Chart vs. Line Chart](http://vizwiz.blogspot.com/2012/10/stacked-area-chart-vs-line-chart-great.html): The pros and cons of each chart and why there has been a debate about merits of these two charts.

[Bar Charts for Nonprofit Data Nerds](http://annkemery.com/portfolio/bar-charts/): A short powerpoint slide introducing typical uses of several bar charts.

[The waterfall charts](http://www.storytellingwithdata.com/2011/11/waterfall-chart.html): what they are, an example use case, and how to create one.

[The tree map](http://aea365.org/blog/dvr-week-johanna-morariu-on-a-dataviz-technique-new-to-aea365-treemaps/): this article explains what a tree map is and does, how to create one; also has additional resources and further readings.

[Present your data in a scatter chart or a line chart](http://office.microsoft.com/en-us/excel-help/present-your-data-in-a-scatter-chart-or-a-line-chart-HA010227478.aspx): Scatter charts and line charts look very similar, especially when a scatter chart is displayed with connecting lines. However, there is a big difference in the way each of these chart types plots data along the horizontal axis (which is also known as the x-axis) and the vertical axis (which is also known as the y-axis).

[Top Ten Dos and Don’ts for Charts and Graphs](http://guides.library.duke.edu/topten): Tips by the Data & GIS Services at Duke University library. (Also has other data visualization resources; follow links at top of page)

Designing a good-looking visualization

[Data Visualization: Clarity or Aesthetics?](http://dataremixed.com/2012/05/clarity-or-aesthetics-part-2-a-tale-of-four-quadrants/) A diagram that shows how a graphic design can be clear/beautiful or confusing/ugly.

[A color palette optimized for data visualization](http://www.mulinblog.com/a-color-palette-optimized-for-data-visualization/): If you don’t like the default colors in data visualizations such as bar chart or pie chart, I suggest you check out a color palette that is designed for use in data visualization.

[The Dataviz Design Process: 7 Steps for Beginners](http://annkemery.com/dataviz-design-process/): Steps 2, 3, 4, 5 in this post discuss various issues in the design of a visualization, e.g., reduce clutter, use color to emphasize key findings, write takeaway message in the title, etc.

[Data Visualization Charts from the U.S. Congress Floor: The Good, the Bad and the Ugly](http://blog.visual.ly/data-visualization-charts-form-the-u-s-congress-floor-the-good-the-bad-and-the-ugly/): critiquing data visualizations used by members of Congress.

[Visual Encoding](http://www.targetprocess.com/articles/visual-encoding.html): how to identify your data types and pick the relevant variables.

Communicating your message

[Using Visualizations to Tell Stories](http://datajournalismhandbook.org/1.0/en/delivering_data_4.html): Using a series of examples, an instructor at Duke University explains how data visualization can be effective for feature stories, where it can go deeper into a topic and offer a new perspective.

data visualization can be effective for both breaking news – quickly imparting new information like the location of an accident and the number of casualties – and for feature stories, where it can go deeper into a topic and offer a new perspective, to help you see something familiar in a completely new way. – See more at: http://datajournalismhandbook.org/1.0/en/delivering\_data\_4.html#sthash.h3sWuNy2.dpuf

Sarah Cohen, Duke University

Sarah Cohen, Duke University

[Examples of data journalism](http://datajournalismhandbook.org/1.0/en/introduction_3.html): Favorite examples by contributors to Data Journalism Handbook.

[How the data sausage gets made](https://source.opennews.org/en-US/learning/how-sausage-gets-made/): A software developer in New York Times newsroom explains a data reporting project from start to finish.

[Using Data Visualization to Find Insights in Data](http://datadrivenjournalism.net/resources/using_data_visualization_to_find_insights_in_data): Four steps in analyzing a data set for story ideas: document initial insights, transform data, visualize, analyze/interpret.

[Getting Started in Data Journalism](http://www.journalism.co.uk/news/getting-started-in-data-journalism-the-first-steps-in-a-story/s2/a556633/): Experienced data journalist Steve Doig shared some tips on getting started in data journalism at the International Journalism Festival in Perugia, taking data “from idea to story.”

[Visualization as the Workhorse of Data Journalism](http://datajournalismhandbook.org/1.0/en/delivering_data_3.html): Editors at the Washington Post share six tips for using visualizations to start exploring a dataset.

[Basic Steps in Working with Data](http://datajournalismhandbook.org/1.0/en/understanding_data_2.html): Three key concepts you need to understand when starting a data project: (a) Data requests should begin with a list of questions you want to answer, (b) Data often is messy and needs to be cleaned and (c) Data may have undocumented features.

[Start With the Data, Finish With a Story](http://datajournalismhandbook.org/1.0/en/understanding_data_4.html): A journalist explains techniques used in digging for a story in EU Commission’s Financial Transparency System.

[3 ingredients of effective data visualization: audience, message, the right chart](http://www.mulinblog.com/3-ingredients-of-effective-data-visualization-audience-message-the-right-visualization/): The purpose of data visualization is to convey messages, not to awe audiences with spectacular visuals.

[16 useless infographics](http://www.theguardian.com/news/datablog/gallery/2013/aug/01/16-useless-infographics?CMP=twt_gu): If it’s an image that displays and explains information quickly and clearly, it’s an infographic. The Guardian Data Blog collected some that are head-craning, eye-squinting, eyebrow-raising nightmares that leave you more confused than before you clicked ‘next’. The result is an exciting gallery of infographics that tell you nothing.

Visualization as the Workhorse of Data Journalism

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Tools and tips

[Data visualization DIY: Our Top Tools](http://datajournalismhandbook.org/1.0/en/delivering_data_7.html): Data editors at UK Guardian introduce the free data tools they use for their day-to-day work.

[List of data tools](https://www.pinterest.com/journalismtools/data/): A collection of popular digital tools for data visualization and infographics; curated by [Journalism Tools](https://twitter.com/Journalism2ls).

[List of data tools](http://selection.datavisualization.ch/): a collection of tools that staff at [Datavisualization.ch](http://selection.datavisualization.ch/) work with regularly.

[Prepare data for analysis and visualisations](http://www.eea.europa.eu/data-and-maps/daviz/learn-more/prepare-data): Best practice and tips for creating clean raw data optimised for data analysis and visualisations.

[Excel tip sheet](http://ire.org/media/uploads/car2013_tipsheets/excel_1_tipsheet.pdf): A tutorial on sorting and filtering data in Excel.

[A Five Minute Field Guide](http://datajournalismhandbook.org/1.0/en/getting_data_0.html): Looking for data on a particular topic or issue? Not sure what exists or where to find it? Don’t know where to start? Check out nine proven methods introduced in this article.

[How to create a side by side bar chart in Excel](https://www.youtube.com/watch?v=ZWAaUkItPL0&list=UUu0waUz-GtZzeRQunEHSj_g): Watch this tutorial video, as well as relevant tutorial videos in the playlist to the right of this video.

Resources

[Data visualization resources and ideas](http://www.mulinblog.com/data-visualization-resources-and-ideas/): Media companies like the New York Times, The Guardian, ProPublica, La Nacion in Argentina and the Texas Tribune have set up vast data-driven journalism archives, dataviz tools and interactives on their websites. These are great sources of ideas and inspiration.

[Guide to Internet search](http://www.mulinblog.com/guide-to-internet-search/): Peruse and then explore this excellent list of international search tools and useful websites compiled by NPR’s data maven Margot Williams, an expert at tracking people, assets, prisoners, planes and just about everything else worldwide.

[30 Places to Find Open Data on the Web](http://blog.visual.ly/data-sources/): A list of resources for finding data; curated by visual.ly.

[European Union Open Data Portal](https://open-data.europa.eu/en/data): The EU Open Data Portal features a growing range of data produced by the institutions and other bodies of the European Union. Data are free to use, reuse, link and redistribute for commercial or non-commercial purposes.

[**Global data journalism resources**](http://ijnet.org/blog/global-data-journalism-resources)**: ijnet.org curated a list of resources that includes data sets, tutorials, examples of great work and more.**