The Power of "Where"

Add maps to your analysis and dashboards

Location, location, location. It's a refrain no longer reserved for where to buy a house. The proliferation of devices that provide your whereabouts with precision (and that of any coffee shop, restaurant or cinemas in your vicinity) has transformed our expectation of answering the question "where" in our personal lives.

But can you answer the question "where" when it comes to insight about your organization's decisions too?

Why maps matter

Mapping lets you see the implications of your data in ways not detectable on a standard spreadsheet, linear graph or pie chart. Since we are all familiar with maps, using maps in visualization immediately orients your audience to the data. Maps provide context that leads to better ways to prioritize, plan and execute your objectives.

Does one product category outshine another in a specific territory? What about inventory level differences in the North versus the South? Is California experiencing higher levels of flu than Massachusettes and are vaccines being distributed appropriately? Are student test scores varying significantly in different provinces? Within provinces? By city?

Answering questions like these becomes fundamentally easier and more accurate when you see your data on a map. Incorporating these maps into dashboards is where value skyrockets. One of the most powerful visual techniques is to relate different views of information. So when you combine your maps with time trends and other charts on a dashboard, the result is a much richer understanding of your information.

Incorporating maps into your day-to-day analysis, reports and dashboards requires the following capabilities:

- **Create maps fast.** Insist on making maps as quickly as you create a bar chart.

- **Add relevant data for depth.** Overlay related data and demographic details for robust analysis.

- **Drill into maps for answers.** Real-time exploration reveals answers to detailed questions.

- **Customize with ease.** Add specialized maps when that meets your needs.

Create maps fast

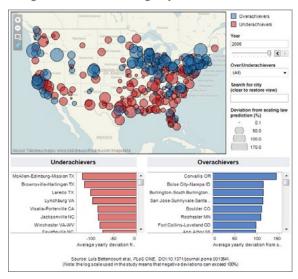Putting your data on a map should be as straightforward as creating any other chart.

Figure 1: Innovation in America

Mapping your data provides dramatic insight into patterns not easily interpreted in spreadsheets or bar charts. This dashboard gives you the power to filter quickly to see information by year or look into academic performance in a specific city.

You rely on lines to show you trends over time, right? It's reasonable to expect your analysis application to use geographical information just as easily.

Country names, state abbreviations and zip codes are examples of geographical data that should be leveraged to the hilt. So whether your data commands a world map, provinces in France or all the zip codes in New York, ensure you are using this information in maps rendered with the same ease as making a bar or pie chart.

Add relevant data for depth

Don't settle for single dimension maps. Layer other data with your maps to help you quickly answer "where" and "what" so you can move on to "who," "when," and "how." Combine maps with pie charts, for example, to reflect percentage analysis across regions. Reflect relative volume of sales with larger and smaller circles. Use color spectrums to reflect strong and weak profitability.
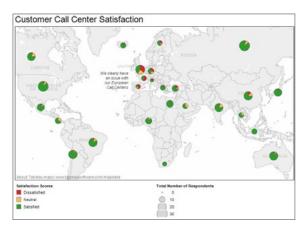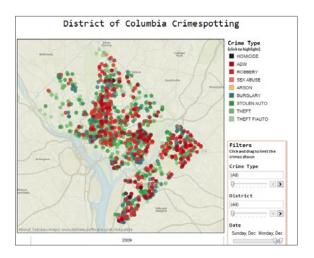

Figure 2: Customer satisfaction across the Globe

Call centers highlight one industry where maximum efficiency while retaining high customer satisfaction define success. This map quickly reveals critical issues in Europe that demand immediate attention.

Augmenting your own data with demographic data – things like population and income levels – adds another level to your maps that reveal relationships and trends that could otherwise go undetected. You might find, for example, that you have higher sales rates in densely populated, high income neighborhoods. While that might not surprise you, the combination may reveal unexpected pockets of sparsely populated mid-income households where sales are growing exponentially. How can you tap these opportunities?

Drill into maps for answers

Once created, investigating areas of interest on your maps lets you move from macro to micro views to explore your data with just a click. Zoom to look at the nuances of a neighborhood of a city. Select a few states to understand trends in a region. Add United States Census data to add a richer dimension to factors that could impact your success.
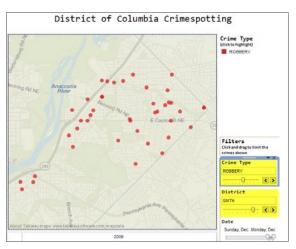

Figure 3: Crime in Washington D.C.

Allow viewers to drill down into maps that maintain relevant levels of detail, such as names, streets and borders to orient the viewer. This map illuminating crime in Washington D.C. during December 2009 shows the specifics of robbery activity the Sixth district.

" We use the mapping feature in Tableau a lot because, as a cable company, our regional differences are very important. Using traditional tools like Excel, it's difficult to get a sense of what the geographic data means without actually seeing it. When you see the data on the map, you can actually see what it means and what the different regions are. "

– Giedre Aleknonyte, Kabel Deutschland

Because maps reveal trends and outliers that cannot be easily detected from other forms of visual analysis, combining them with other standard dashboard charts and graphs, incorporate them into your dashboards. There, they create a powerful driver for faster, better insight than ever before. Maps can even be used to filter other charts in the dashboard, quickly suggesting paths not previously considered that accelerate your ability to make informed decisions.

Customize with ease

Distribution center networks and sales territories are examples of situations that command custom maps. Ensure you can add custom geocoding with your own latitude and longitude data with the same ease as creating a standard map. Creating maps that matter the most to your business or department will equip you to reflect on your opportunities in ways a pivot table or spreadsheet can never achieve.
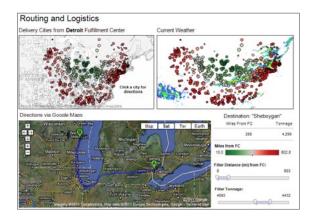

Figure 4. Optimize logistics routes

Optimal routing from a distribution center for a logistics company in Detroit, Michigan reflects factors that impact daily decisions. Since weather is a critical input to any routing decision, this dashboard includes a live update from a weather WMS server that lets dispatchers evaluate both distance and potential weather issues when determining a route.

Custom weather maps or other specialized maps on a web map service (WMS) server are sometimes exactly what you need to make your data pop. Integrating these with other analysis should not be a painful process managed in multiple applications requiring varied expertise to implement. Adding these maps should be as easy as adding any other type of map.

Tableau puts your data on the map

Mapping data is one of the many ways Tableau Software helps people see their information in relevant, insightful ways to make better decisions. Tableau's next-generation business intelligence solution provides fast, easy analysis that let individuals put their data to work. In addition to dozens of built-in mapping features, Tableau supports custom geocoding and your own WMS server when these offer a better solution for you. In addition to exploring the maps here, you can interact with more maps at *www.tableausoftware.com/solutions/mapping*.

With Tableau's extensive library of free training videos, you can be making incredible maps with your data in a couple of hours. Start unlocking the potential of mapping your data. *Download the full-featured trial of Tableau Desktop*, connect to one of your favorite data sets (or use a sample that is provided), and start experiencing the impact of Tableau.

About Tableau

Tableau Software helps people see and understand data. Ranked by Gartner in 2011 as the world's fastest growing business intelligence company, Tableau helps individuals quickly and easily analyze, visualize and share information. With more than 6,500 customers worldwide of all sizes and across industries, Tableau is used by individuals throughout an organization, in an office and on-the-go. See the impact Tableau can have on your data by downloading the free trial at *www.tableausoftware.com/trial*.