Print

Communicating Visually with Animation

Adding animation to your graphs can be effective when motion or animation helps communicate the message in your data.

For example, you can create a geographic map with an animated filter, click Play, and see how the map changes over time.

Let's revisit the Measles scenario. Here is a geographic map for the Measles data, with a local data filter for Decade. You can add animation to the local data filter.

When you click the Play button, the map automatically updates with the data for the selected decade.

The scale for Yearly Incidence is locked, so it doesn't change with the animation. This makes it easier to compare Yearly Incidence over time.

Notice the difference in the states before and after the 1960s. Depending on your audience, animations like this can really make your message pop!

Another way of adding animation is to use bubble plots. Here's a bubble plot for all states over time. The bubbles are grouped by region and state, are colored by region, and are sized by population. The bubble lines are trailed, so you can better see the pattern over time.

When you click the Play button, you can see the measles rate before, during, and after the transition period at the regional level.

For all regions, the measles rate has decreased substantially after the measles program was implemented.

When you split the bubbles by state, the bubble plot is very busy. You can see the overall trend before, during, and after the transition, but you can't easily see the individual states.

You can add a local data filter to see one region at a time. As you scroll through the regions, you can see how the measles rate has changed over time for each of the states within the region.

However, this is also a very busy graph.

Let's return to our original question for the Measles scenario: "Was the rate of measles infections reduced, across all states, after the measles vaccine program started?"

Are either of these animated graphs effective in answering this question?

This depends largely on your audience: who your audience is, what they know, and what you want them to know. It also depends on the communication channel you will use to share the visualization.

Understanding your audience is the topic of the next video. For an excellent video on using bubble plots to visualize world health and world wealth, search for "Hans Rosling's Joy of Stats" on the internet.

Statistical Thinking for Industrial Problem Solving

Close