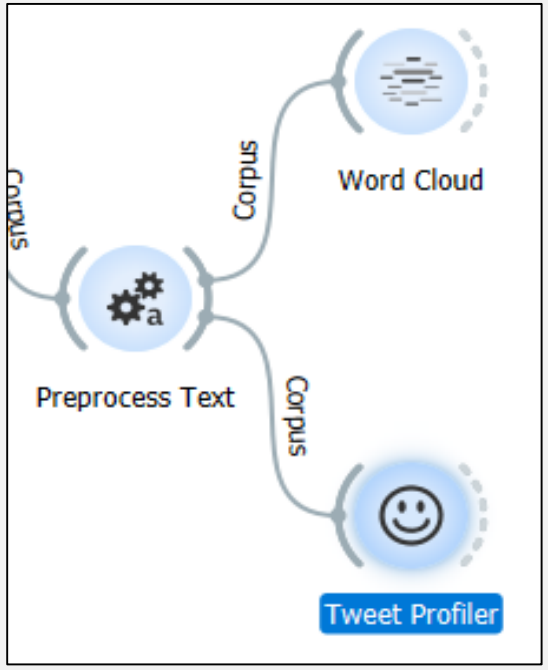
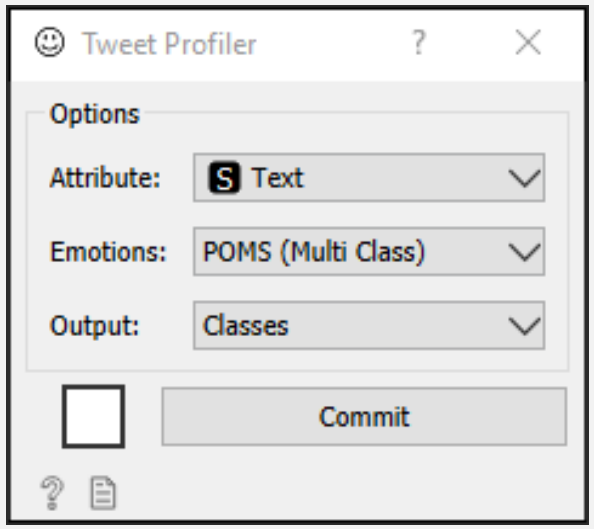
Tweet Profiler

Connect the **Preprocess Text** widget to the **Tweet Profiler** widget.



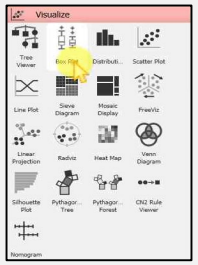


Look at the **Tweet Profiler** screen again and make sure the **Attribute** is set to the **Text** field.

Click on the **Commit** button and be patient as it runs. The percent complete will show underneath the Commit button.

When the profiler is complete (aka the % complete disappears), you can close this window.

Box Plot

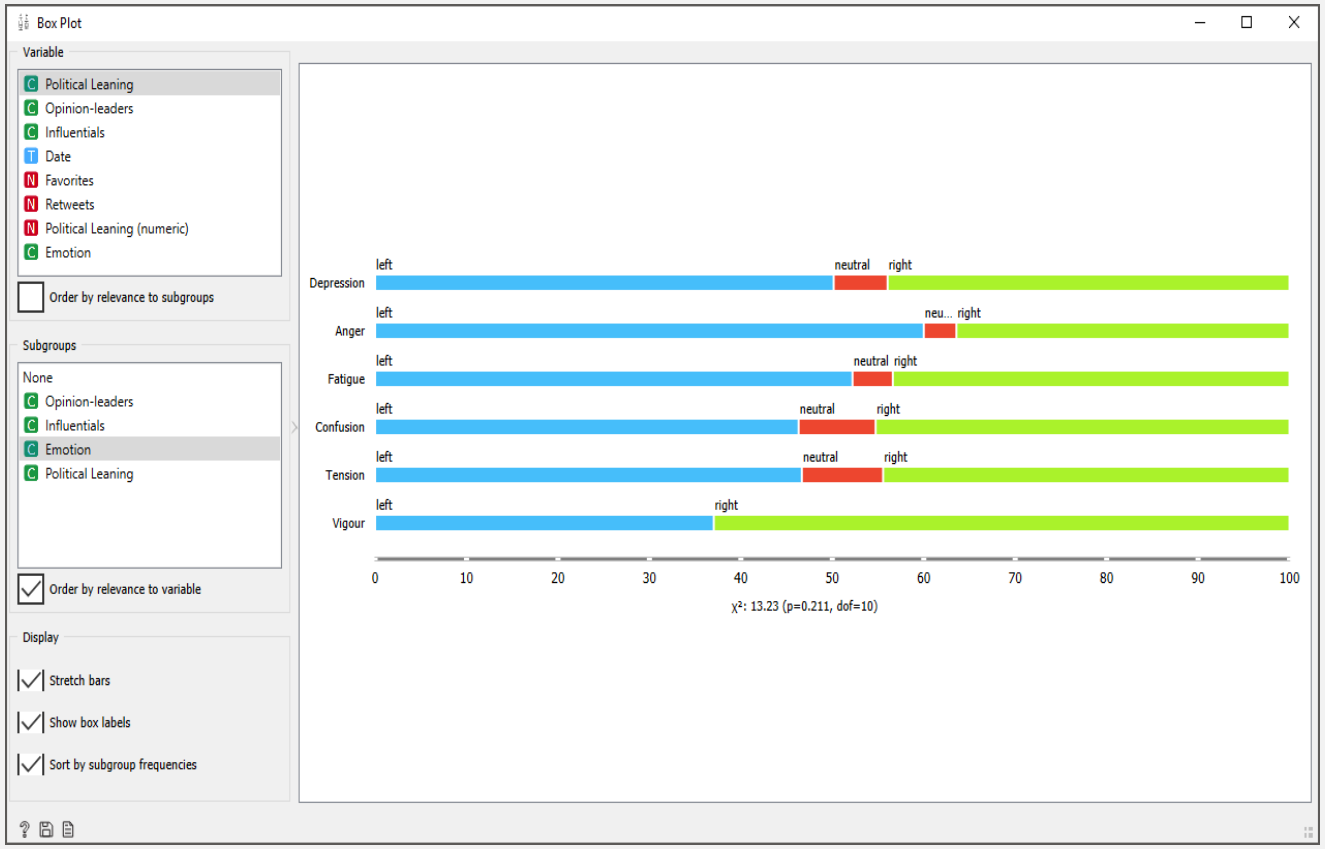


Open the **Visualize** section of the widget toolbox and select **Box Plot**.

Connect the **Tweet Profiler** to the **Box Plot** and then **double-click** the **Box Plot** to open the options screen.

The column on the left contains the variables that you can investigate through the box plot.

The image shows the emotions subgroups in comparison to the political leaning category.



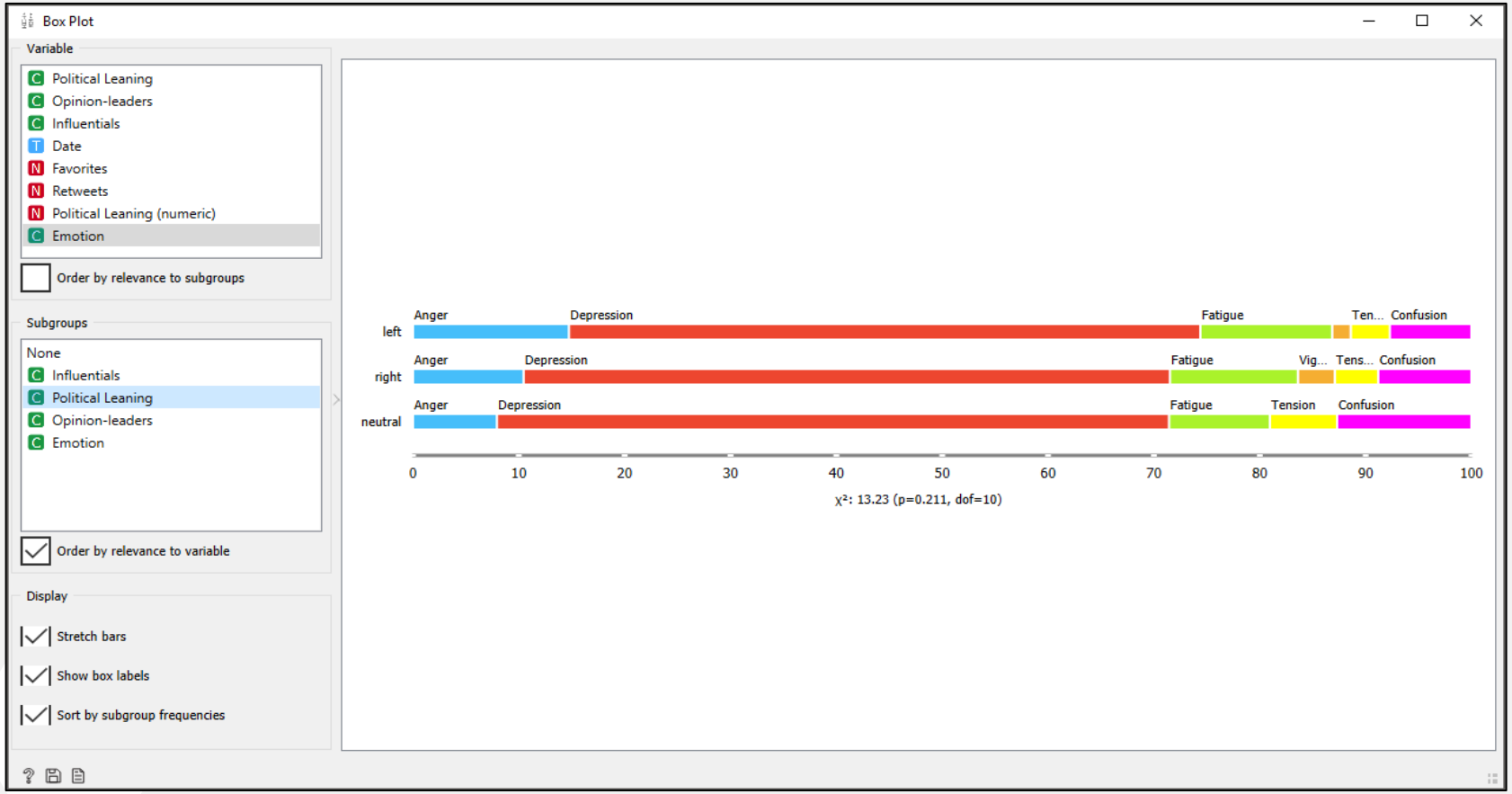
The plot, in this example, shows the 6 POMS classes and the percentages for each political leaning.

(See the PDF for more info on what these mean.)

Hover your mouse over some of the plot sections to see the percentages.

Box Plot

If you flip it and look at Political leaning subgroups by emotions, you can see that those who are neutral politically (in the narrow view defined by our dataset), their tweets show as more depressed and confused.

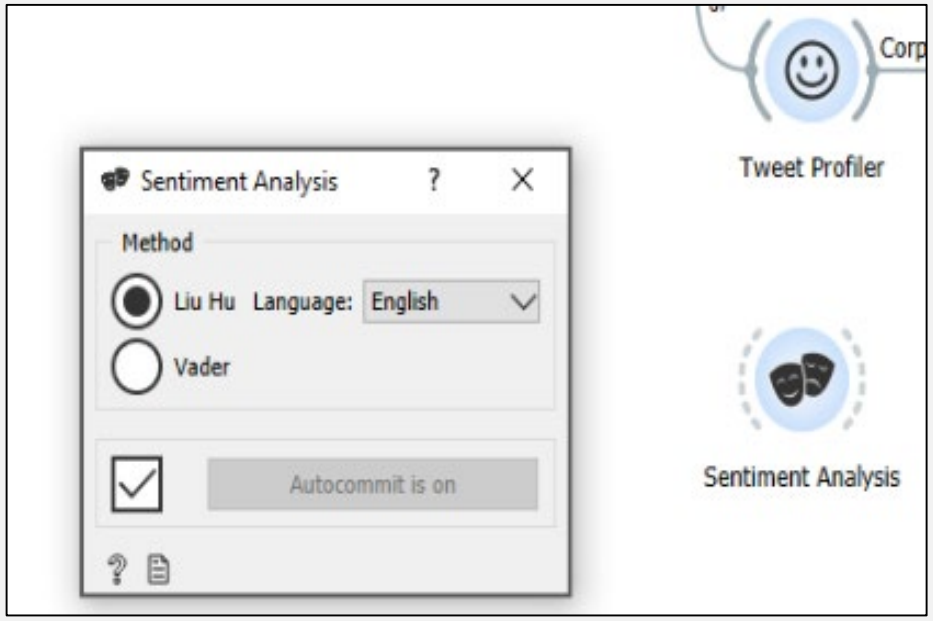


After examining some other combinations, please close the box plot window.

Sentiment Analysis

Back in the **Text Mining** section of the widget toolbox, is Sentiment Analysis.

Add the Sentiment Analysis widget to your work area and **double-click** to open it.



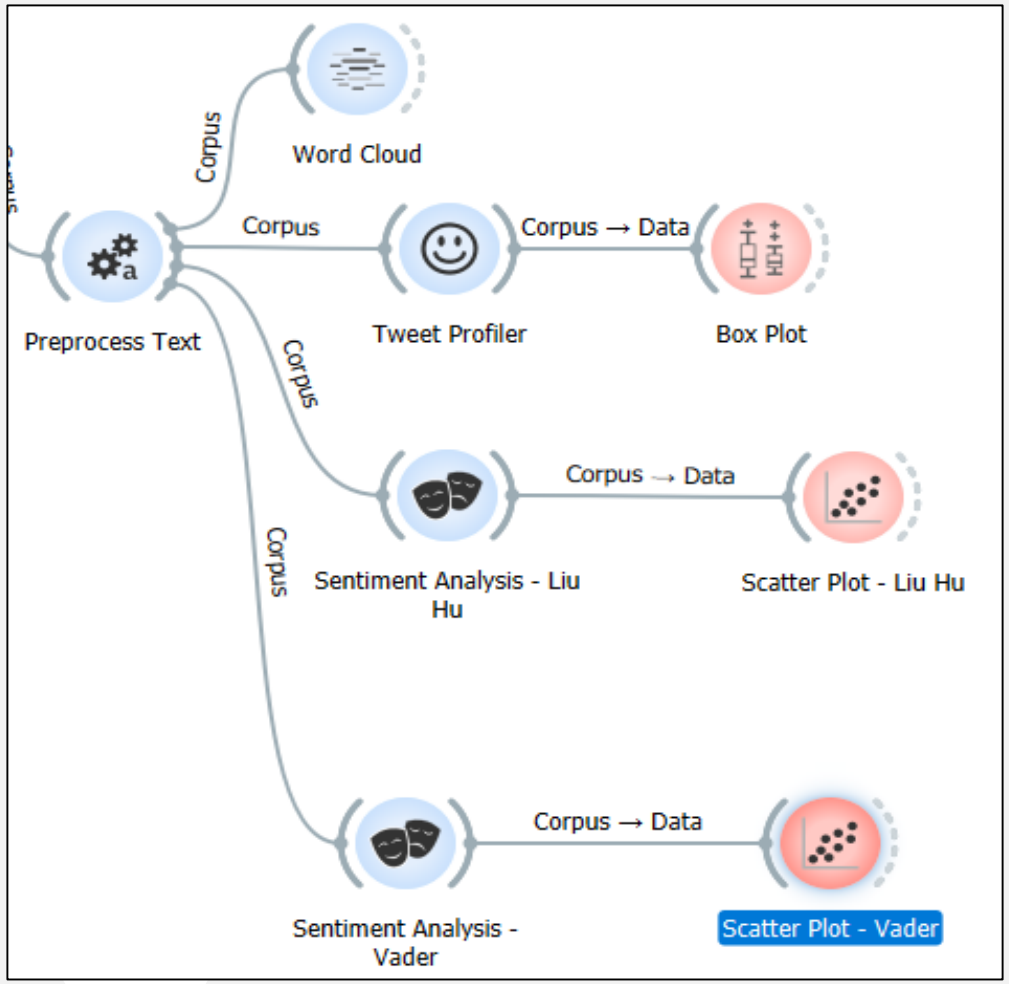
The Sentiment Analysis widget has two options for the method.

Liu Hu is specifically lexicon based and language specific and ranks sentiment as a single number that is either negative, zero, or positive.

Vader is uses rules-based analysis in addition to the lexicon and has 4 scores: positive, negative, neutral, and compound.

Sentiment Analysis

We are going to run both methods to view their results.



Rename the first Sentiment Analysis widget to include Liu Hu in the name and make sure the method is set to **Liu Hu**.

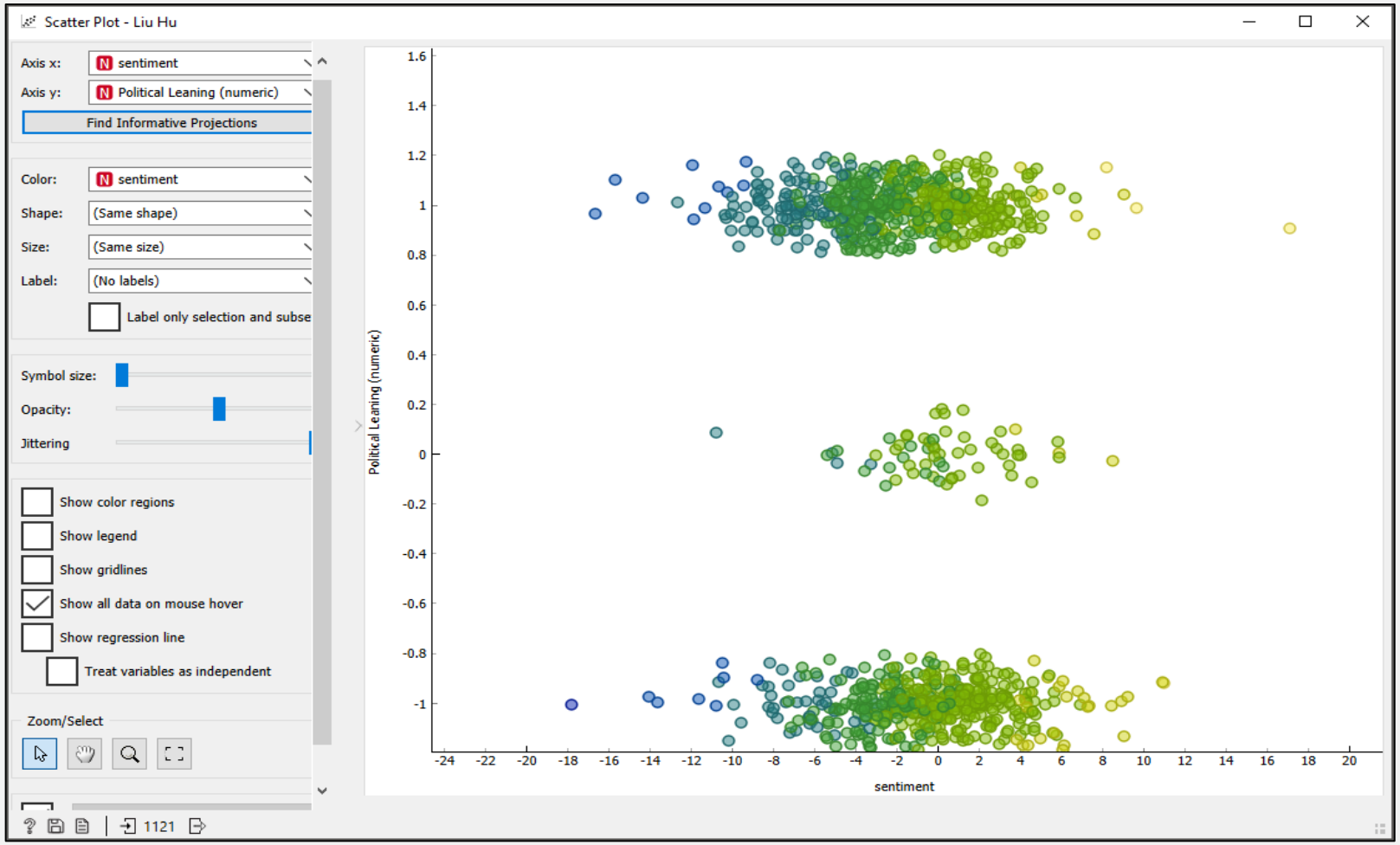
Add a second Sentiment Analysis widget, **name it** with Vader, **double-click** and **set** the method to **Vader**.

Under the **Visualize** section of the toolbox, **Add** two **Scatter Plot** widgets.

Connect one to each Sentiment Analysis widget and **rename** them accordingly.

Liu Hu Scatter Plot

Double-click on the Liu Hu scatter plot.
Set the **x-axis** to **sentiment** and the **y-axis** to **Political Leaning (numeric)**.
Set Color to **sentiment**, slide the **Symbol size** to **small** and the **Jittering** to **large**.



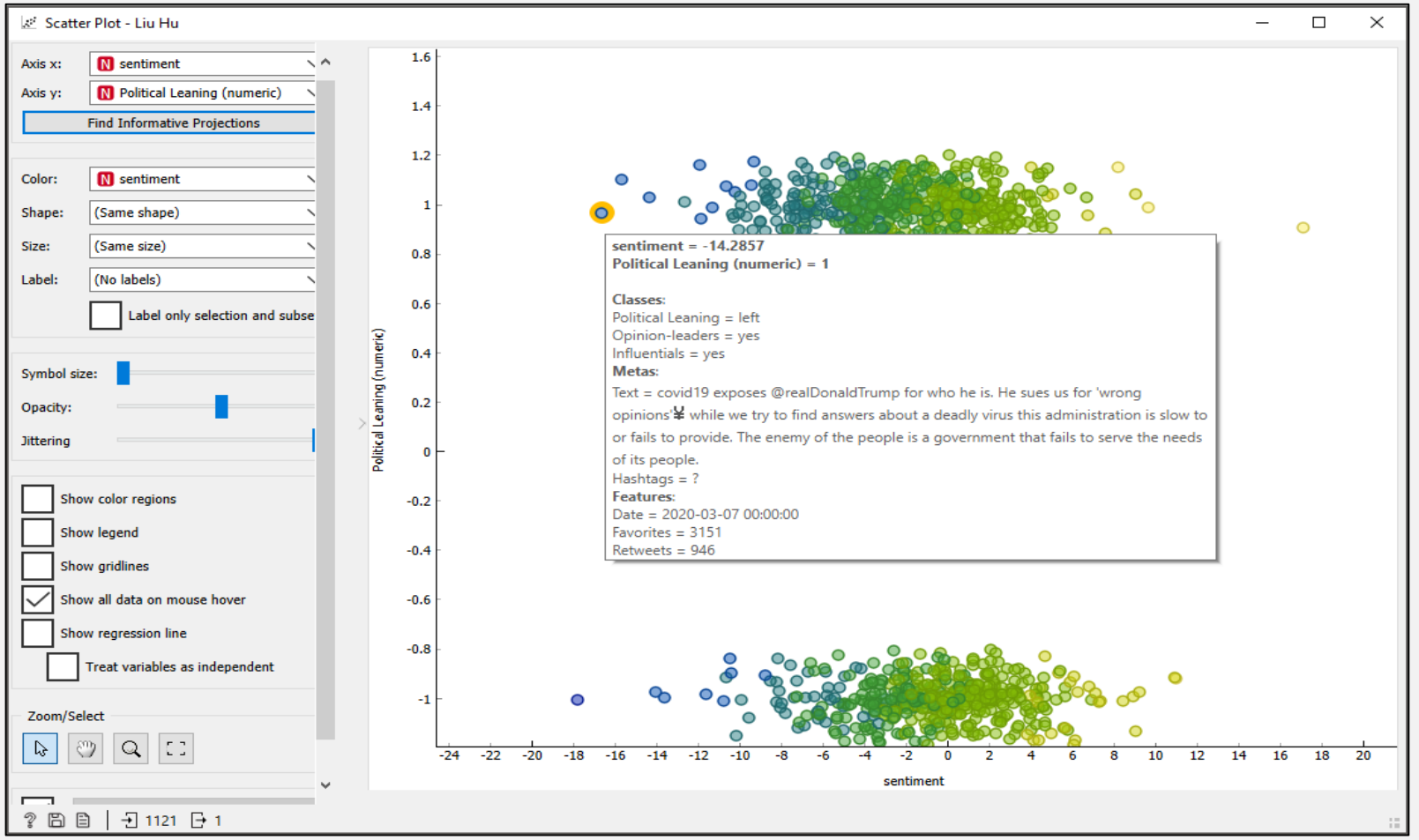
The three bands of points from top to bottom are Left, Neutral, and Right. Coding Political Leaning as numeric allows us to view scatter plots of their sentiment together on one plot.

On the x-axis, the sentiment values are negative to the left and positive to the right.

Liu Hu Scatter Plot

Click on a point within the plot and then **hover your mouse** over that same point.

The single score for the Liu Hu sentiment will be listed along with the categorical and meta information for this specific tweet.



Click on various nodes within the plot and read the corresponding information.

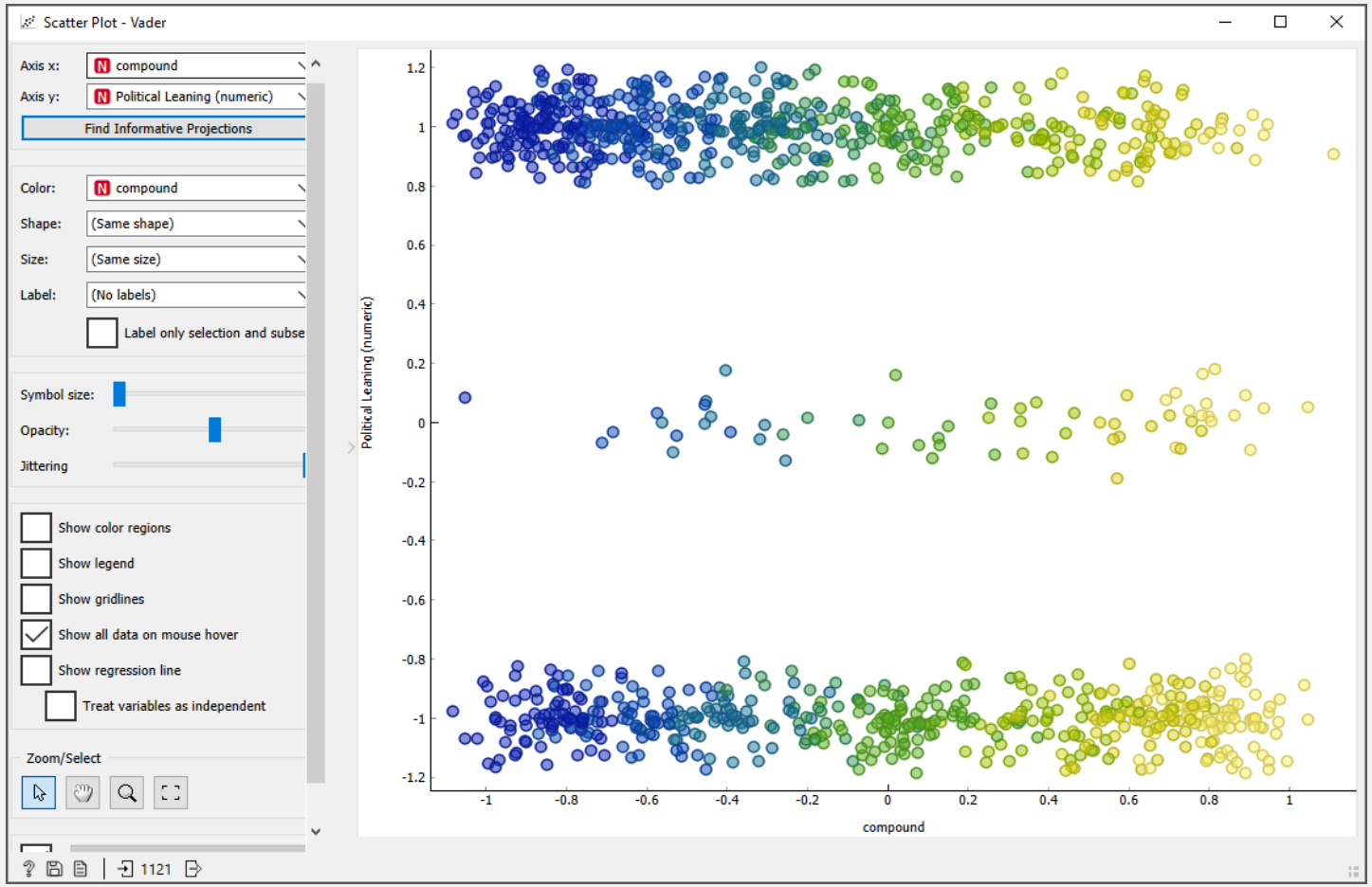
Finding the outliers on plots like this can lead to further analysis of specific tweets.

When you have examined some tweets, close this window.

Vader Scatter Plot

Double-click on the Vader scatter plot. If it looks suspiciously like the Liu Hu, go back to your Sentiment Analysis widget for the Vader path and make sure the method is set to Vader (been there done that…)

Set the **x-axis** to **compound** and the **y-axis** to **Political Leaning (numeric)**.
Set Color to **compound**, slide the **Symbol size** to **small** and the **Jittering** to **large**.



Again, the three bands and axes are set to the same as Liu Hu.

Note that the density of the left political leaning plot (at the top) is denser on the left side (negative) and the right political leaning plot (at the bottom) is denser on the right side (positive).

This correlates with the Tweet Profiler where it showed left political leaning as more angry/depressed and the right as having more vigor (cheerful, carefree, etc.)

Explore the data using the pos, neg, and neu scores and when finished, close this window.

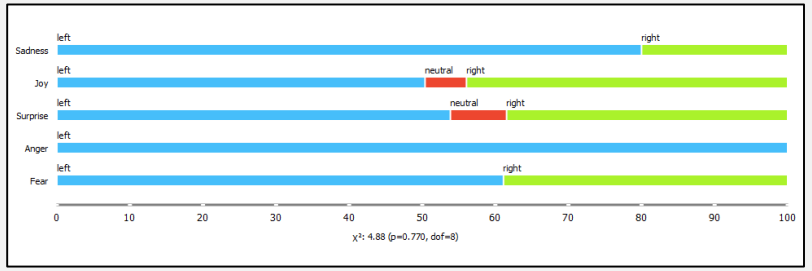
Tutorial Deliverables – Second Workflow

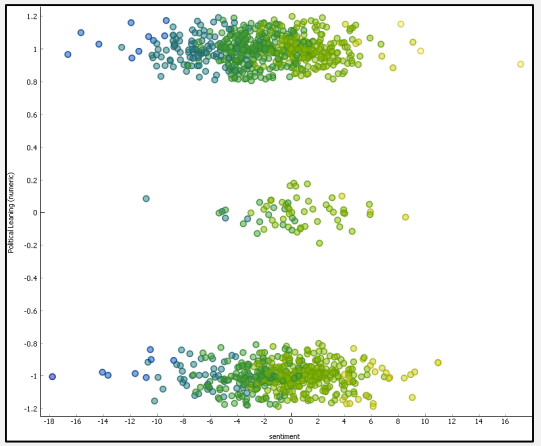
Congratulations on making it to the end of your second Orange workflow!

For attendees of the NEH Digital Culture Institute, please submit the following as a PDF document:

1. A screen shot of your completed workflow
2. A PNG of your Tweet Profiler Box Plot (your choice of variables)
3. A PNG of one of the Sentiment Analysis Scatter Plots (your choice of method and variables)

Remember that you can use the Save button on any of the visualizations to save them as PNG/SVG/PDF. Also, if you close/reopen your second workflow, the Twitter Profiler is not set to run automatically so your box plot may be empty when you try to view it.





For Questions:

Amy Larner Giroux

407.823.1226

AmyG@ucf.edu

CHDR.cah.ucf.edu