MODULE

8 Data Visualizations

"I believe that good journalism can make our world a better place."

- Christiane Amanpour

Introduction

This module introduces pivot tables, Plotly, and following up on FOIA data, serving as an introduction to digital data visualizations. In addition, students will be able to apply their data filtering skills learned from last module on their FOIA data.

Objectives

1. Students will be able to create basic pivot tables on Excel
2. Students will be able to create basic visualizations on Plotly
3. Students will be able to sort and filter through FOIA data, as well as find trends in it
4. Students will leave with the proficiency to apply these skills to their SLX project, and future assignments

Agenda

Activities

FOIA, Oh Boy-ah (25 min)

Purpose:

To give students the chance to review their FOIA data, as well as practice filtering, sorting, and finding trends. They will also be able to practice creating pivot tables and visualizations on Plotly, as well as presenting their findings to the class.

Materials:

Excel
Plotly
FOIA data (if they haven't had their request fulfilled yet, use ??? data)

Directions:

First, have everyone pull up their FOIA data and ask them to find at least two trends, as well as create a story to explain this relationship. Give them 10 minutes to filter their data, and help them if they're having trouble interpreting their data.

Next, have them create at least two pivot tables and one data visualization on Plotly to demonstrate one of the trends that they found. Remind them that they can do more if they would like. Allot 15 minutes for making their visualizations.

Lastly, have them present their visualizations to the class. This will take about 20 seconds per person.

Discussion:
1. Do you feel like you requested/received too much information? Too little?
2. What was the hardest part of sorting through your data? Finding trends?
3. What trends were surprising or interesting?
4. What struggles did you have in making pivot tables or data visualizations?
5. Do you feel like you are proficient enough that you could apply your Excel skills in a stats class or MSI?

Pivot on a Divot (25 min)

Purpose:
To give students the chance to review pivot tables, as well as practice filtering, sorting, and finding trends. They will also be able to practice using these pivot tables to obtain a variety of information

Materials:
Excel
Plotly
FOIA data (if they haven't had their request fulfilled yet, use ??? data)

Directions:
Encourage students to find a dataset. Alternatively, give them the following data set at https://www.kaggle.com/heesoo37/120-years-of-olympic-history-athletes-and-results.
After they have the datasets, encourage them to find information

Discussion:
6. Do you feel like you requested/received too much information? Too little?
7. What was the hardest part of sorting through your data? Finding trends?
8. What trends were surprising or interesting?
9. What struggles did you have in making pivot tables or data visualizations?
10. Do you feel like you are proficient enough that you could apply your Excel skills in a stats class or MSI?

Crowd Sourced Sophs Survey

https://goo.gl/forms/N6DFf7YH4ME8wKH62