



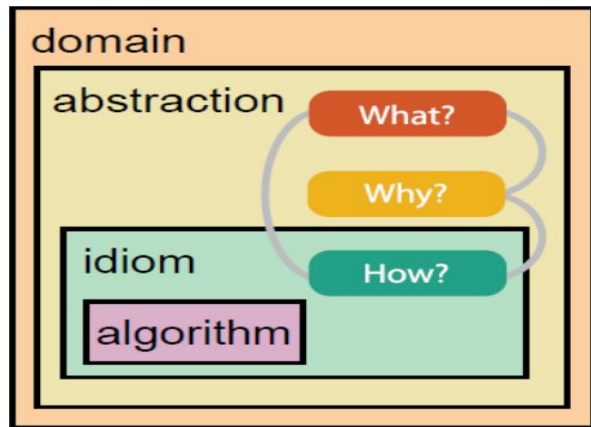
Data Visualizations Final Project

By: Luciano Giannini



The Domain Situation

- The target audience for this data visualization is people involved with the 2020 Vast Challenge.
- The goal of the annual IEEE Visual Analytics Science and Technology (VAST) Challenge is to advance the field of visual analytics through competition. The VAST Challenge is designed to help researchers understand how their software would be used in a variety of analytic tasks and encourage innovation in data transformations and interactive visualizations. VAST Challenge problems provide researchers with realistic tasks and data sets for evaluating their software.



Abstraction

What is shown?

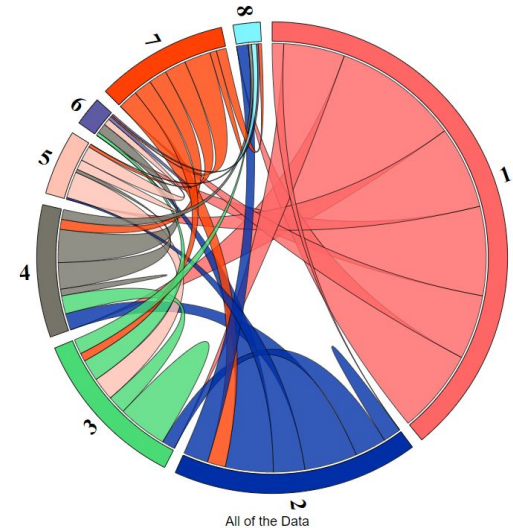
- The data set represents Co-Authorships of people and it contains 5 different parameters, which include: Source, eType, Target, Time, and Weight.
- Focusing on each Object as the edges and the number of different people in the sample as the nodes.

```
1 Source,eType,Target,Time,Weight
2 229337,4,251230,-2702016000,0.5
3 283528,4,251230,-2702016000,0.5
4 259961,4,297669,-2497593600,0.333333
5 216584,4,297669,-2497593600,0.333333
6 283528,4,297669,-2497593600,0.333333
7 224128,4,235863,-2082700800,0.25
8 222672,4,235863,-2082700800,0.25
9 265471,4,235863,-2082700800,0.25
10 283528,4,235863,-2082700800,0.25
11 224404,4,279249,-1893484800,0.25
```

Idiom

How it is shown?

- Using a Chord Diagram we are able to see the relationships between the entire data set.
- The numbers on the outside of the divided groups are the number of co-authorships that percent of people have. So according to the diagram in the data set majority of the people have 1 co-authorship.
- The cords that are attached from one group to another represent the number of people in the source group have co-authorships with people of another group.



Idiom/Abstraction Continued

Why is the user looking at it?

- We can see if the data is skewed in any way based on the connections.
- The user is able to hover over a group and see the connections more clearly using fading and animations.
- Also we see that in the data people that have more than one co-authorship do not have that many connections with people that have one co-authorship.
- Yet reverse this people with one co-authorship almost have an evenly distributed connections with all the other groups.

