DATA

Process book

LMC 3705 Project 3

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INTR

INTRO

This visualization was created as a tool with which one can explore the relationships between police reports, news reports, and social media shares of crime in the Seattle area from January 18th to February 7th. We began the visualization with the hypothesis that society's perception of crime would more closely mirror the representation of crime crafted by the media than that of the police reports and then created a tool that allows users to create their own visualization and explore their own hypothesis regarding the public perception of crime and crime in the media and subsequently refute or support their belief.

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OUR

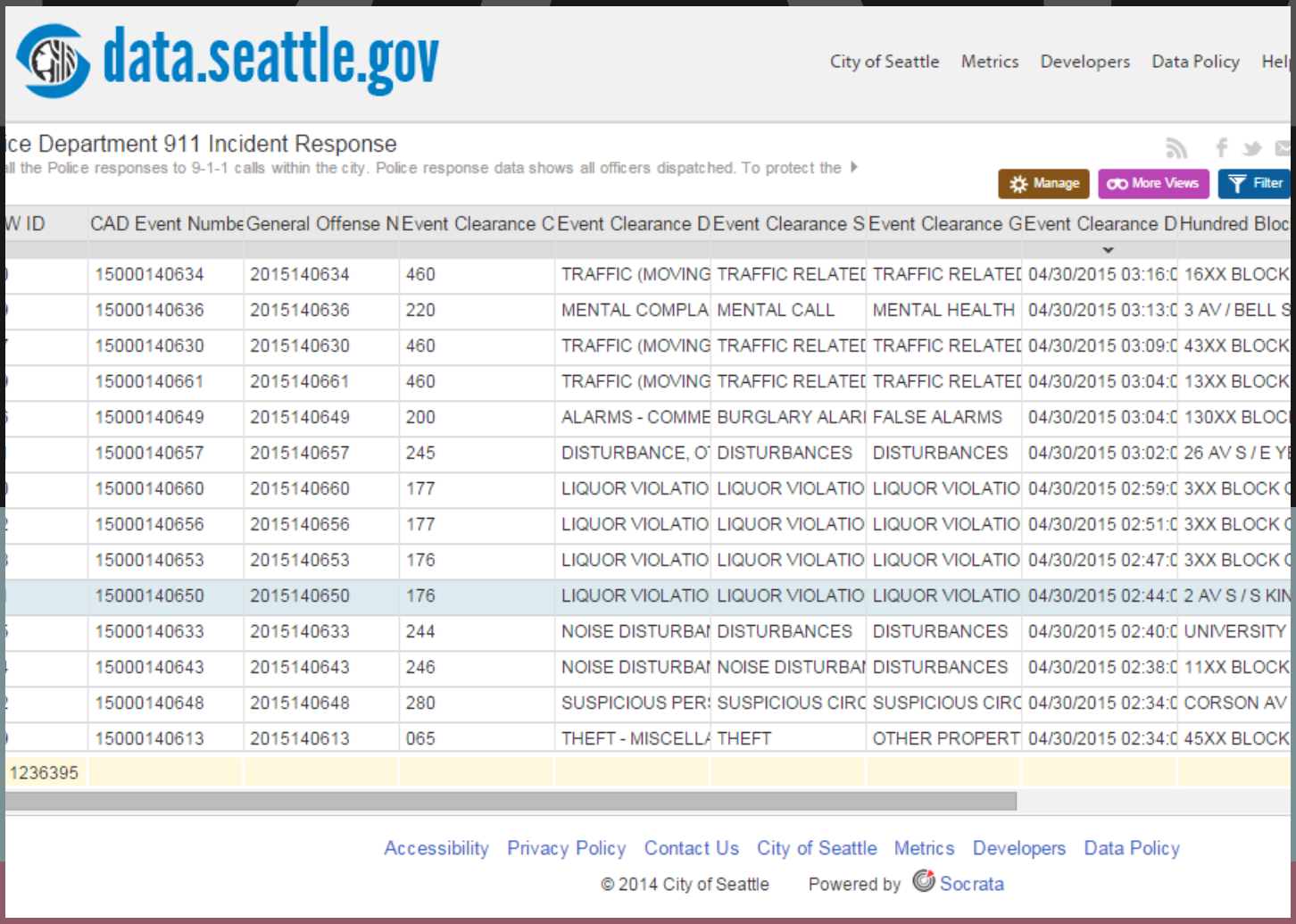
OUR PLAN

The plan for this visualization is to spread social media awareness to allow people to discover this and create their own visualizations. We have a unifying hashtag. We believe that social media presence is crucial for attaining the most successful reach.

ABOUT THE NAME

Perceptatë

Our name comes from the idea of perception (which report you look at is a different perspective on crime) with the Greek Goddess Atë, who is the goddess of mischief, reckless impulse, and delusion. To us, she represents bias that exists in all representation of data.



data.seattle.gov

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ice Department 911 Incident Response

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Seattle 911 Incident Report Online Database that we used for our data visualization project

Seattle 911 Incident Reports

From this topic of research on whether or not, the Seattle 911 incident report would serve as a case study as to allow the public to see the realities of the police work in everyday life. The data sets gives the time and place the incident happen within the day. The data also categorizes data into seven types to differential the incidents in the region. The limitations of this dataset are the first implementation of the records back in 2011 and records are officially released for public viewing.

Furthermore, the data records are categorized in zone and types of crimes, which biases viewers to preconceived notions about the behavior and danger level of the neighborhoods. This data also does not include crimes that are not reported, such as rape, which often goes unreported, as well as crimes that are not caught. Using the police reports as an accurate representation of crime distribution also requires trust in the police and that there is minimal corruption and goodwill, which may not always be true, thus providing another bias.

LOC

Local News Stories

We searched through local news websites using keywords and selected all the articles on local occurrences in our chosen date range.

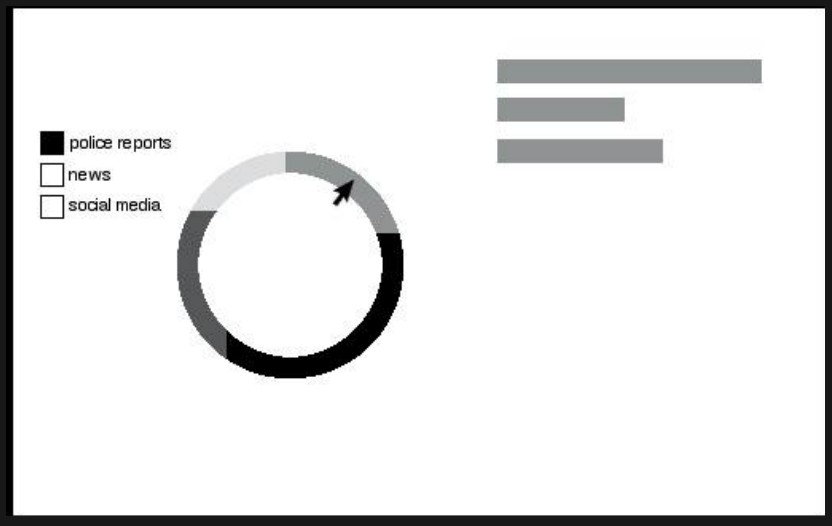
Because these are simply articles come from two different local news sources, Komo News and Kiro 7, the collection of articles does not include all reporting sources and, thus, does not include all of the information that may reach and influence the public. Additionally, the news companies, favoring headlines that will sell, may not cover all crimes proportionally to their occurrences in reality; moreover, these marketable headlines may be exaggerated so as to catch the readers' attention, further introducing bias.

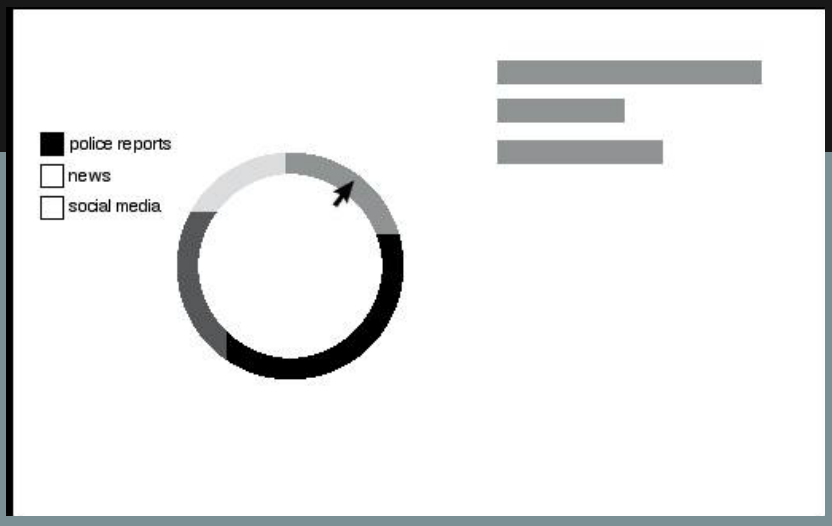
Finally, we do not know the actual reach or importance each article had as they may have been treated differently with their headline size or placement on the site, allowing more or less people to find the article. As one article may have been placed at the top of the page in huge letters, while another detailing a different type of crime might be a small afterthought in the corner, the actual presence of an article does not tell us if the article had an actual impact on the perspective of readers.

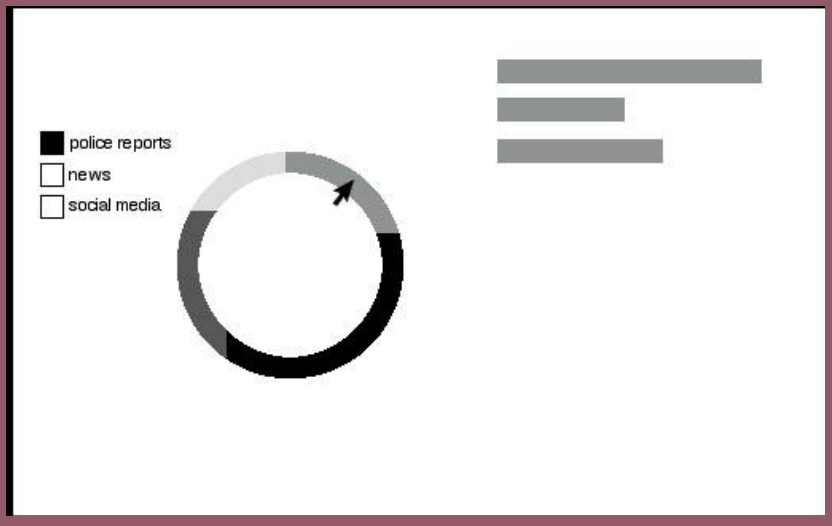
Social Media

In addition to the 911 dataset and news articles, we are recording the number of Facebook and Twitter shares displayed on the article page. The main purpose of including the this is to allow the public to compare and contrast the news depiction of crime in the Seattle region versus the actuality of the crimes occurrences recorded from the Seattle database.

Furthermore, another source of bias is the self-selected demographics of those who use Twitter. For example, only 19% of the entire adult population use Twitter according to Peznally, the user does not have to be in Seattle in order to share the article about Seattle news, which may skew the information. The visualization sunburst represents the average number of Facebook and Twitter shares per article type.







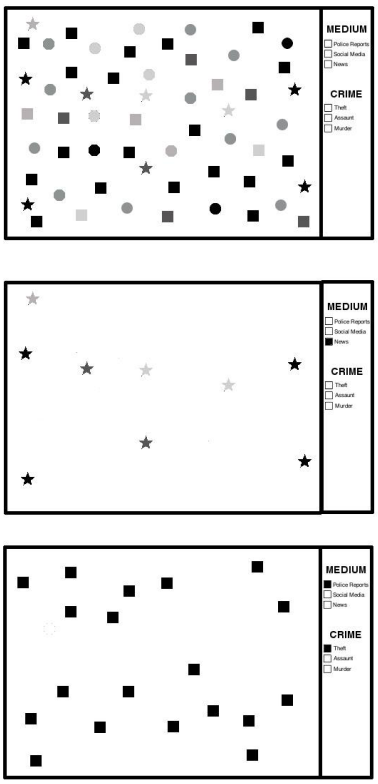
In the first sketch, a circle pie chart maps out the percentage of occurrence of each category for each medium (selected by the viewer). When a section of the chart is clicked, a bar graph appears, comparing the percentages of each medium (the police reports, the news reports, and twitter). This method deals with percentage instead of frequency, which is a source of bias. For example, while the news may talk about a certain crime more than it occurs percentage wise, it may hardly hold up frequency wise.

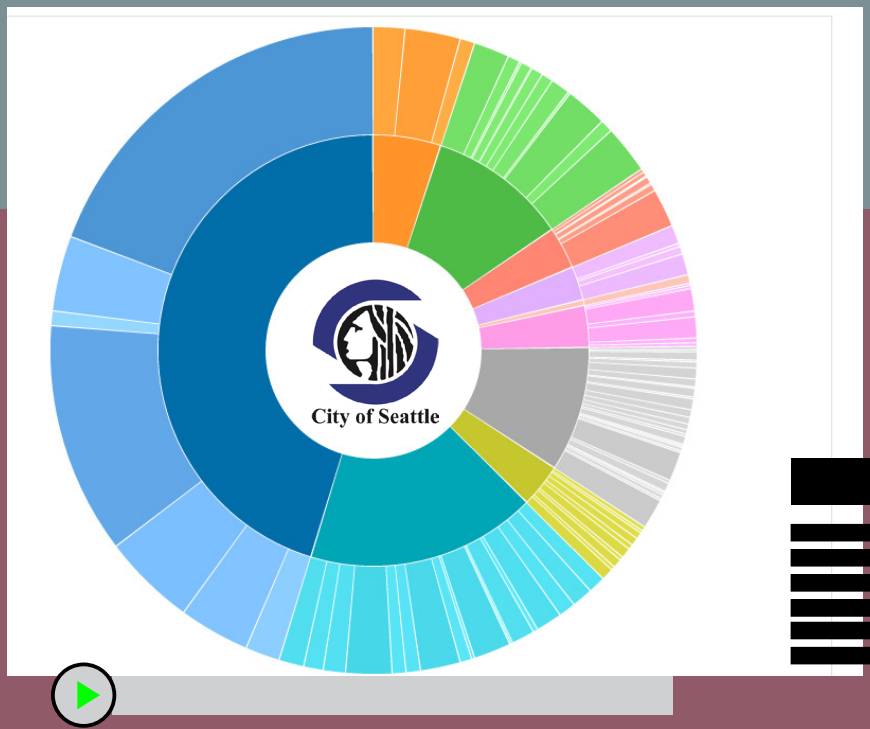
01

ROUND ONE

The first round of visualizations came with new challenges - it was hard to decide what to visualize when we were not exactly sure of the trends of the data yet.

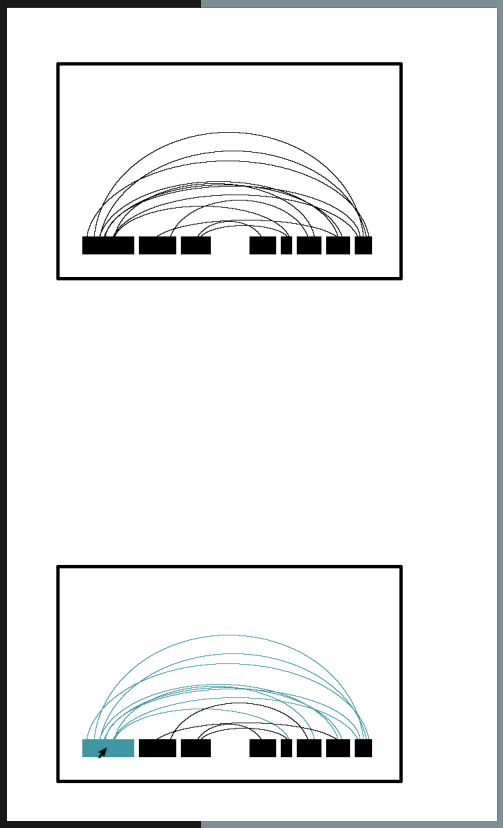
In the second sketch, the visualization plots crime mention occurrences by medium (shape) and color (type). The viewer is allowed to filter through the data, selecting which categories they wish to see on the screen. Thus, they can ask themselves questions about the data and see the results, mirroring our process of inquiry for this project. For example, if we wished to see if people talk about a certain crime more than the news does, I would select both the “news” and “social media” sections as well as the type of crime I wish to observe.

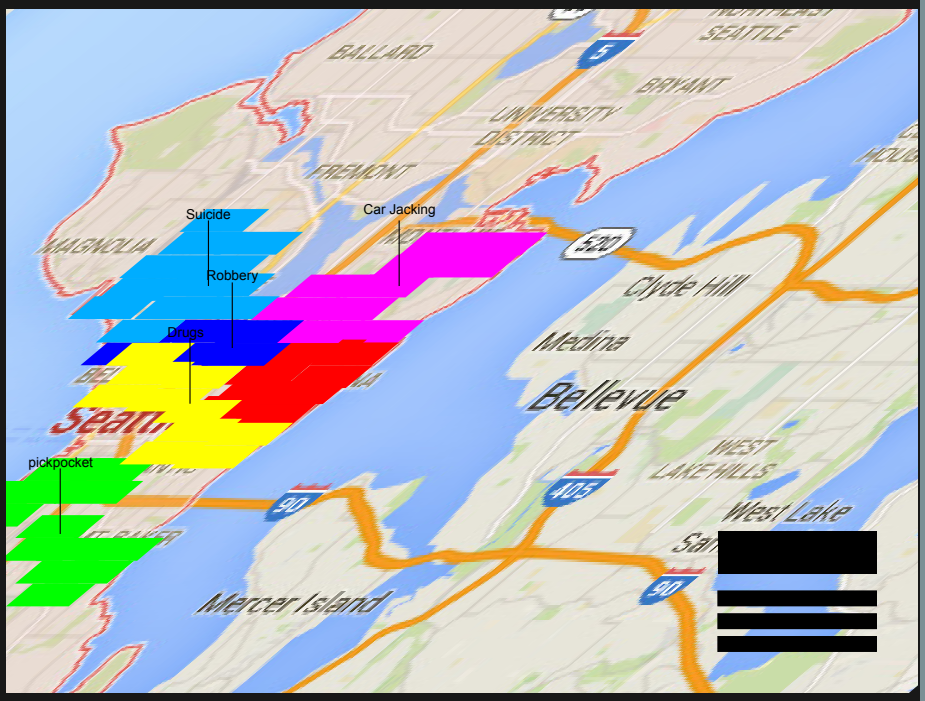




For the Bilateral Pattern, the purpose of the visualization is to see the changes over time, hence, why there was a play button on the bottom. As the user presses play, the user can see the time changes of the words associated with the different sections of the seattle region.

The use of a two node network in a linear diagram. This diagram allows the viewer to select either the medium (on the left side) or the crime (on the right) and see all the links branching out from it, allowing he/she/they to inquire about the importance of those categories in the network and determine the trends of the connections.





In the fifth sketch, the viewer can examine the areas in which the crimes, news reports, and tweets are occurring, allowing the viewer to inquire about each individual neighborhood. Here, the data is sorted by location as the organizing factor, allowing viewers to determine where what happens.

02

ROUND TWO

During the second iteration, we discovered the power of our visualization as an analysis tool that others may employ to explore their own hypothesis about the relationships between police reports, news, and social media. It is a tool with which one can discover a correlation.

03

ROUND THREE

Buttons were added to allow the user to switch between the three different data sets and watch them change.

04

ROUND FOUR

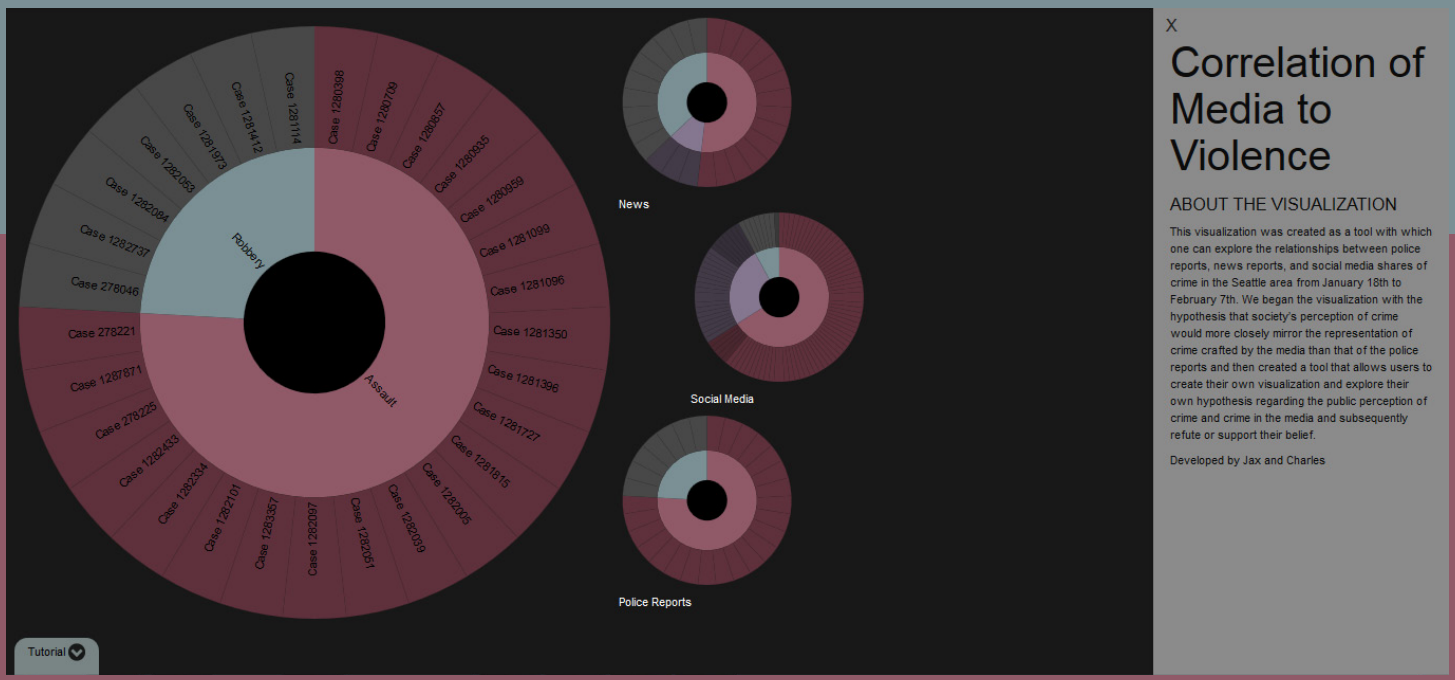
After getting the core code down, the visualization was modified to better display the information in a user-friendly way. We showed a sunburst for each of the datasets so that the user could compare the differences easier. On the side, a description of the collection method for each data set and sources of bias within them appears when one selects a chart. Finally, we created a tab that explains step-by-step how to create one's own visualization. In this, others may also use this tool to explore their own hypothesis on the relationship between the media and the public perception of crime.

#Preceptatë

Impression. Conception. Illusion.

Crime and the Media

Initial landing page of the tool.



Main page showing the tools

FINDINGS

People talk most about assault, which also occurs the most frequently. However, they talk about robbery and homicide roughly the same amount, despite homicide being reported the least and not occurring at all during our three week time-frame. People tended to share articles more often on Facebook than on Twitter. The public perception (represented by Social Media shares) did more closely resemble the new's presentation than the police's presentation; however, on average, shared each article about assault and homicide than those of robbery.