CS171 Midterm 1

Personal Info

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Link to Google doc:
https://docs.google.com/document/d/1wmuQa83dTRs2HUfHhF9iNrpkmt2QGu-Lz9TGm8apIa8/edit?usp=sharing

Task 1

1.1 Design Critique

a. The intended audience of this visual is most likely Huffington Post readers who have an interest or personal affiliation to India.
b. This visual tells the audience the percentage of people who live in the selected regions of India that are vegetarian vs non-vegetarian.
c. The color of each circle categorizes the circles into vegetarian and non-vegetarian, the area of each circle is proportional to the percentage of people **in that specific area** who follow that circle's category of diet (with each pair of red and green circles having areas adding up to 100), and the location of each pair of circles indicates the region that these percentages correspond to.
d. If you only care about the dietary breakdown of any one region in India, then I think these methods of visual encoding are effective since it adequately and quickly shows the proportions for each of the diets. However, if you want to look at India as a whole, this method is ineffective since it doesn't account for the population size of each region which

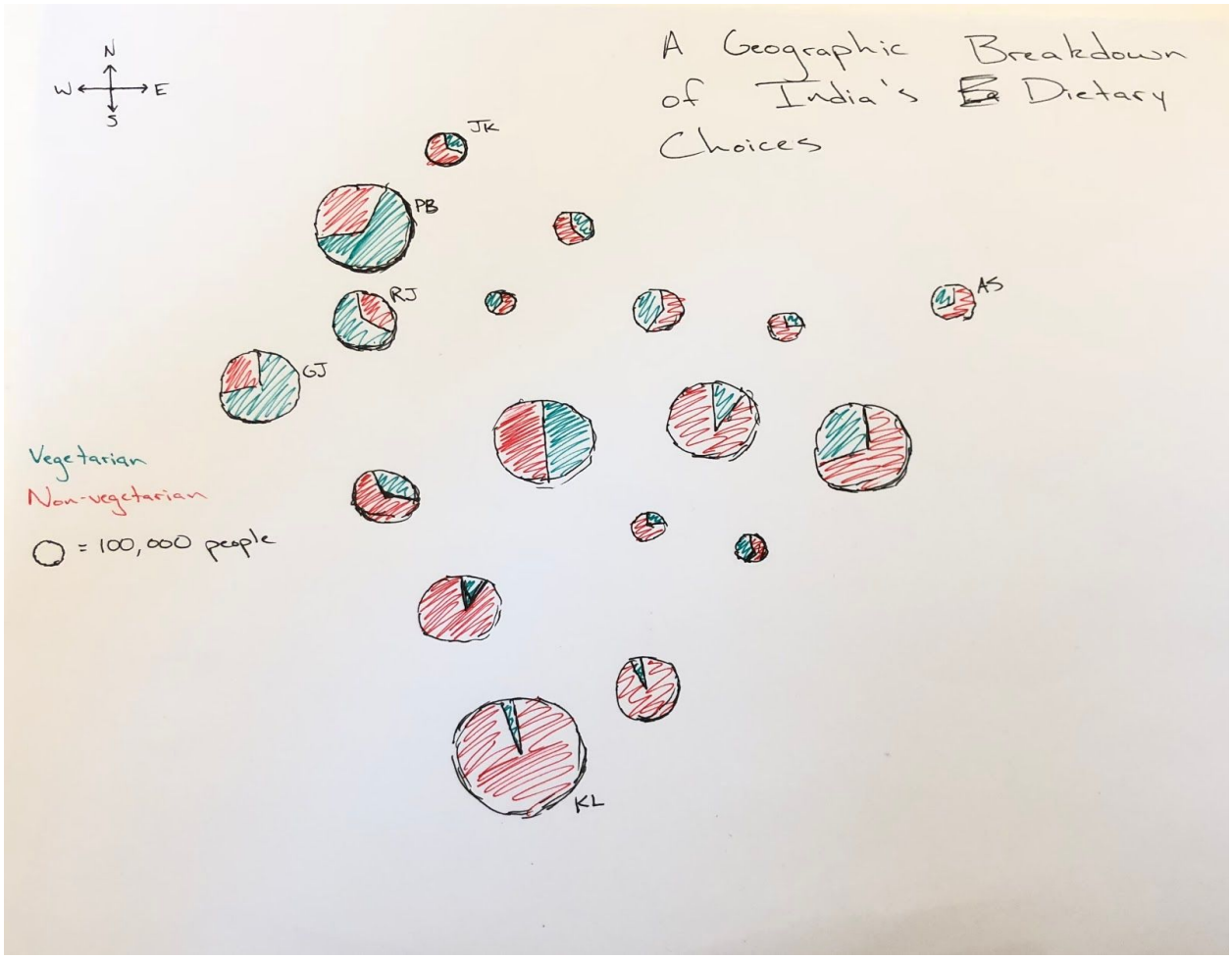
makes it difficult to truthfully compare different regions and can cause you to run into Simpson's Paradox.

e. Three things that I found to be successful in this visual:
    - The use of contrasting colors (red and green) make it fast and easy to distinguish the two categories of diets
    - A clear breakdown of dietary choices for any one given region
    - The use of location allows you to pick up on certain trends that might be related to geographic location (for instance, it appears that northwestern regions in India have higher percentages of vegetarians **within their own region**).

    Three things that I found this visual to fail in:
    - The size of the circles should not be proportional to the percentages within their own region, but rather the percentages within all of India. This would still allow the audience to make comparisons within a region but also between regions.
    - I find the number labels to be a bit distracting and redundant
    - The stacking of the circles increases the visuals lie factor since the area of ink in the topmost circle takes away from the area of ink in the underlying circle.
f. Overall, I don't like this visual since I find it can be a bit misleading when trying to make generalizations about India as a whole, which, as the title suggests, is most likely the intended purpose of this visual.

1.2 Redesign

In my visual, I kept the components from the original visual which I thought worked. These components were the geographic location of each circle as well as the color choice to distinguish vegetarian from non-vegetarian. However, I also addressed the issue of being able to compare between regions by making the size of each pie chart proportional to the population of each region, and I minimized the lie factor by getting rid of the overlying circles for pie charts.



Task 2

2.1 Graphical Integrity

This visual uses an inconsistent time scale with a much larger gap between 1964 and 1975 than 1975 and 1990 which takes away from the graphical integrity and increases the lie factor of this visual. The use of an illustration of a doctor is also unnecessary chart junk that makes the visual much more difficult to interpret since it is an irregular shape with irregular area. This illustration also drastically reduces the data-ink ratio since the same amount of information could have been conveyed with a few lines of varying lengths.

2.2 Gestalt Principles

Connection: Each bottle of wine is physically connected to the foods it pairs well via lines. Alternatively, foods that don't pair well with wine aren't connected to any bottles at all.
Similarity: The color of each food is similarly colored to the types of wines it pairs well with.
Proximity: Similar types of wines and similar types of foods are placed near one another in the visual.

2.3 CRAP

Contrast: The parts of the visual that indicate value are clearly contrasted with the other elements through the use of color. Also, different categories are given contrasting and distinct colors.
Repetition: The colors of the different categories are repeated throughout the visual to promote cohesion.
Alignment: The items in the pinwheel are aligned next to their neighboring categories as well in the "in detail" section below. This also promotes cohesion.
Proximity: Similar categories are placed near one another in the pinwheel.

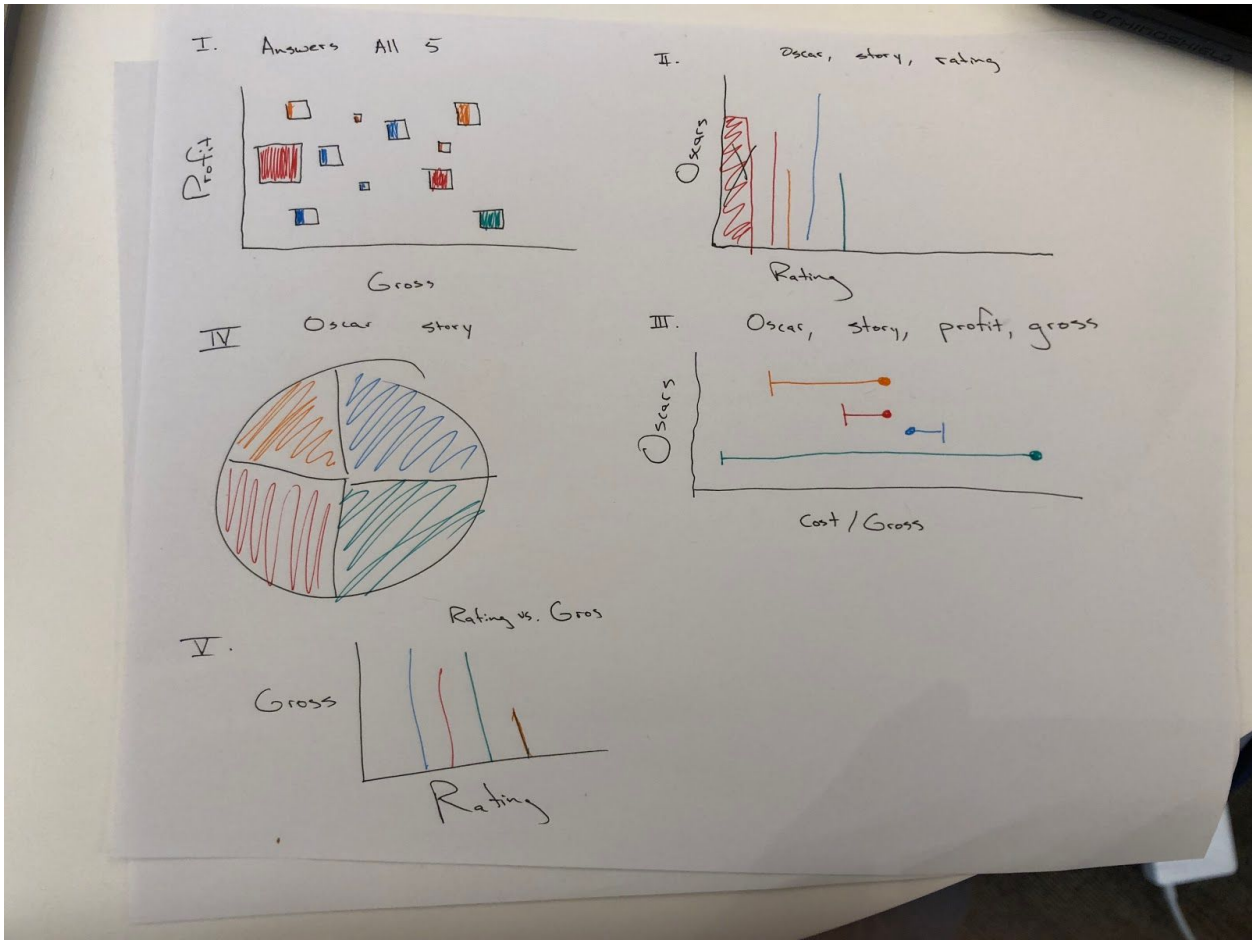
Task 3

3.2 Audience/Questions

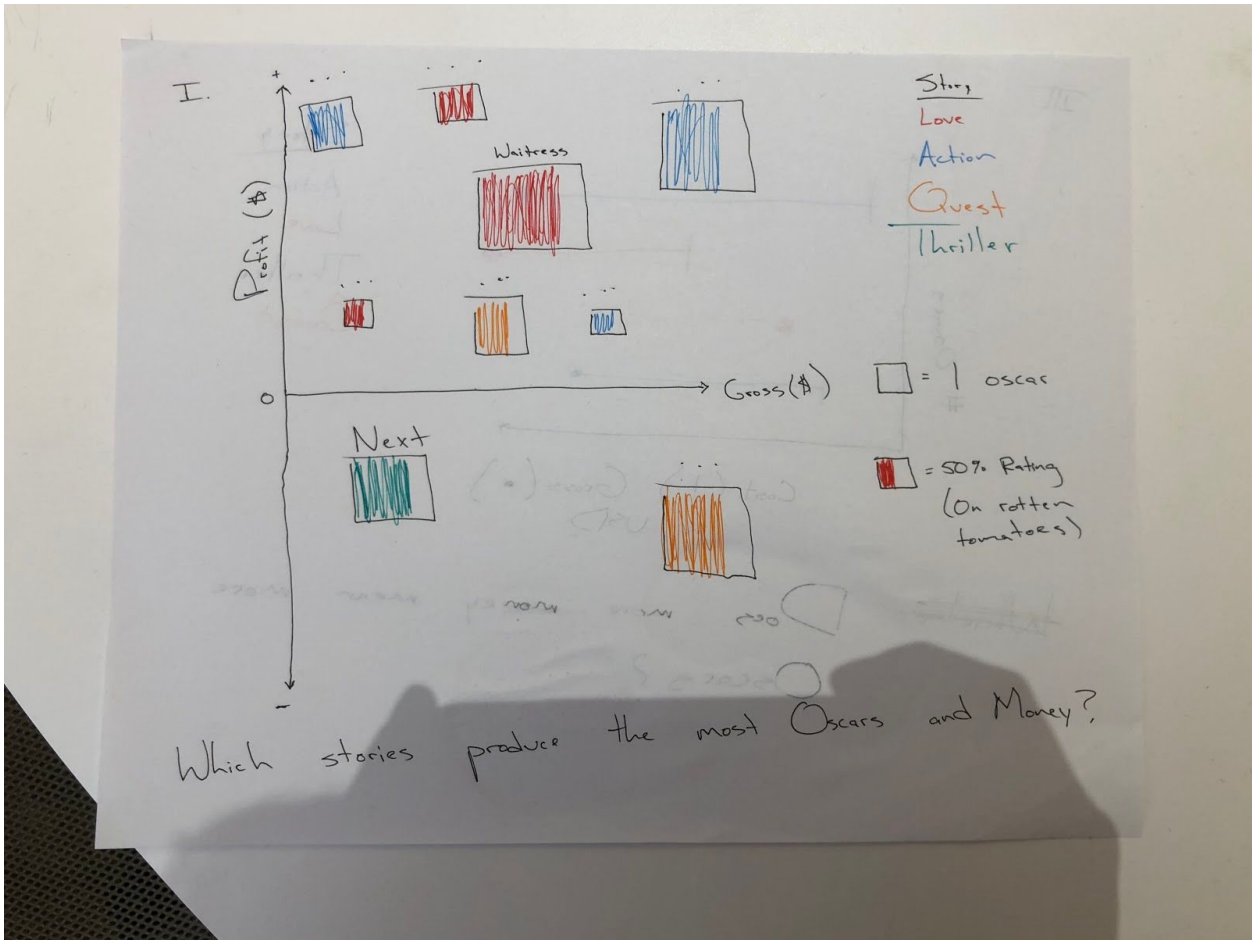
My intended audience is going to be people who are passionate about movies (film buffs). Some questions my audience might have include:

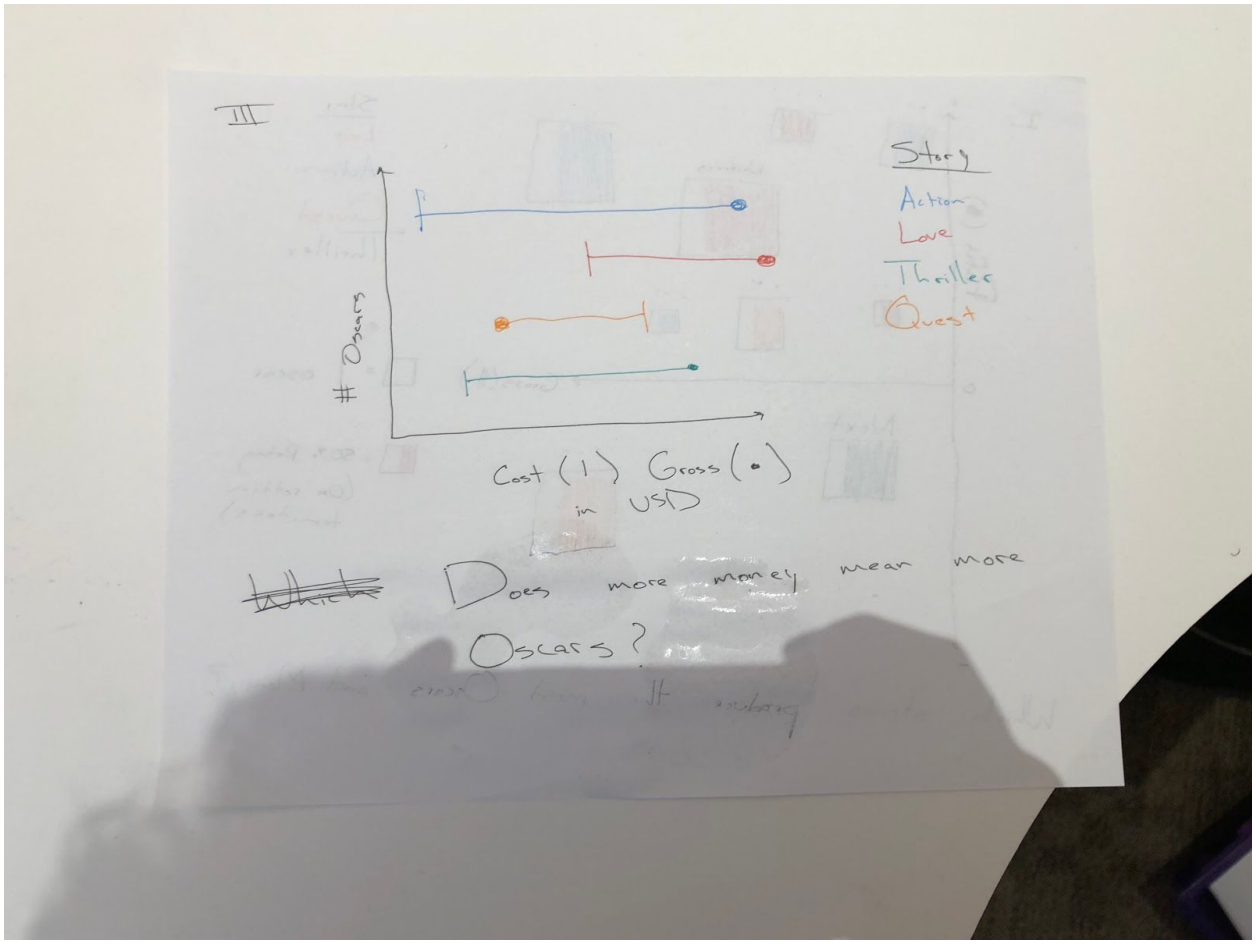
1. Which types of story are the highest grossing (domestically)? (Success)
2. Which types of story have the highest profitability? (Success)
3. Which types of story are the most highly rated (on Rotten Tomatoes)? (Success)
4. Which types of story are most likely to win an Oscar? (Success)
5. Is there a relationship between story, rating, gross, profitability, and number of Oscars?

3.3 Quick Sketches



3.4 More in Depth


I.
Profit ($)
+
0
-
Gross ($)
Waitress
Next
Story
Love
Action
Quest
Thriller
= 1 oscar
= 50% Rating
(On rotten tomatoes)
Which stories produce the most Oscars and Money?



High data-ink ratio
Contrast
Repetition
Marks: squares, dots lines
Channels: color