

Information Visualization

CHECKPOINT III: Visualization Sketch

G44-A

1. Overview

Begin by checking the image of the last page. While our dashboard tries to mimic the computer of a Law & Order: Special Victims Unit (SVU) detective, in four Windows' windows: Suspects, Stats, Timeline and Criminal Record; our idioms are essentially split in two main categories: inside SVU and outside SVU. The first shows the actors' distribution inside the show and their appearances, and the last tells us what they've done out of it. The dashboard is interactive and can be filtered by one of the following:

- Woman;
- Man;
- Under 21 years old, at the time of the episode;
- Between 21 and 50;
- Over 50.

Beginning with the **filters available**: in the right side there is a window "Stats", with a search input box. This box lets you select an actor's name, to view its data. Below this, there are five buttons with the labels above mentioned. If an actor is not selected, you can also filter by (only) one of these categories. The default set, when nothing is selected, all actors in SVU are counted.

Well, as mentioned, we can divide out visualizations in two groups. Regarding the vis **inside SVU**:

- Still in the "Stats" window, there is a Sankey chart in which you can see the distribution simultaneously by gender and age of the actors that participated in the series. When a category filter is in place, this graph will highlight the flow stream correspondent;
- In the "Criminal Records" window, there is a pie chart that represents how often do actors have several appearances on the show. When a category is selected, it shows the frequency of that set.

Regarding the vis **outside SVU**:

- The main and bigger window, "Suspects", has a network graph that connects the works (tv shows/movies outside SVU) in red that the actors that were in the show. When a category is selected, it only shows actors in that set. When an actor is selected, it only shows that person's net of works.
- The "Timeline" window is the core of our vis. Shows how the work of an actor evolved over time, in two dimensions: rating and frequency of jobs. In this bar chart, the xx-axis has the years relative to the year of (first) participation in SVU, from ten before to ten after. The yy-axis has the relative frequency of jobs, in percentage. And the color has the avg ratings. If a group of actors is selected, it shows the average data for that set.

2. Visual Encoding

As mentioned above, the information represented in these visualizations is for one actor or group of actors by the categories.

Network: this undirected graph will represent the common works by the guest stars participated outside the SVU. The nodes will be the actors (type: *nominal*) and the work (type: *nominal*) they have made together, and the links will connect actors to work. The type of nodes will differ in

colour, the actors in blue and the work in red.

Bar Chart: the bar chart will represent the career progression of the actors, in the interval of 10 years before debut and 10 years prior. There is a vertical yellow line in the middle separating the bars from before and after the year of debut. The bar height represents the frequency of work by year (type: *ratio*) with the values normalized and the combined ratings (type: *ratio*) of their work by year are represented with colour, with values between white (the lowest rating) and blue (the highest rating). We represent the medium of the frequency with a red line for both sides.

Doughnut: the doughnut will represent the number of appearances of the actors in episodes. Each slice corresponds to a number of appearances and the angle of the slice corresponds to the amount of people (type: *ordered*) that have that number of appearances.

Sankey: the Sankey represents the demographic of the actors. Actors are split by gender and then by age. The width of the flow is the amount of actors (type: *ordered*) that have these characteristics.

3. Answering the questions

1. Which guest stars participated in each movie/show?

Network. With no filters chosen, the graph shows all the actors and the works they have participated. With the mouse cursor hovered on the nodes, we can see which actor participated in which movie/show.

2. Which actors have works in common?

Network. We can see if two actors have work in common by checking if they both have a link to the same work.

3. Do guest stars have several appearances on the show?

Doughnut. We can see if the actors selected had more or less appearances by the angle of each slice corresponding to a number of appearances.

4. What's the combined rating of the works they did before and after SVU? What was their work frequency before and after SVU?

Bar chart. In this chart we can see by the color of the bars the rating of the works and by the height we can see the frequency of work they had in that year.

5. How did career progress on average (all actors)?

Bar chart. With no filters selected we can see if they had more work or not by comparing the height of the bars and checking the position of the red lines. We can see if the ratings of the works improved if the bars are more blue-ish.

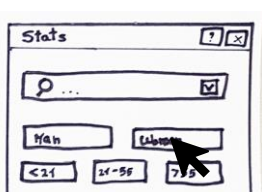
6. What's the gender and age distribution of actors in SVU?

Sankey. Each block represents the amount of people who made n appearances.

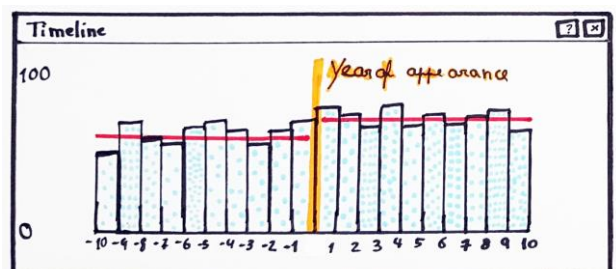
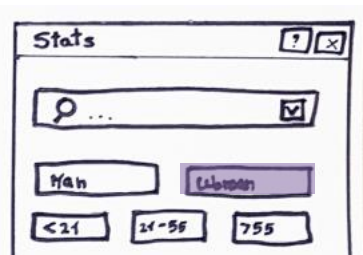
7. How did their gender and age affect their career progression?

Bar chart. The same process as above but with the filters activated.

Storyboard: See how the women's career progression is affected by their gender:

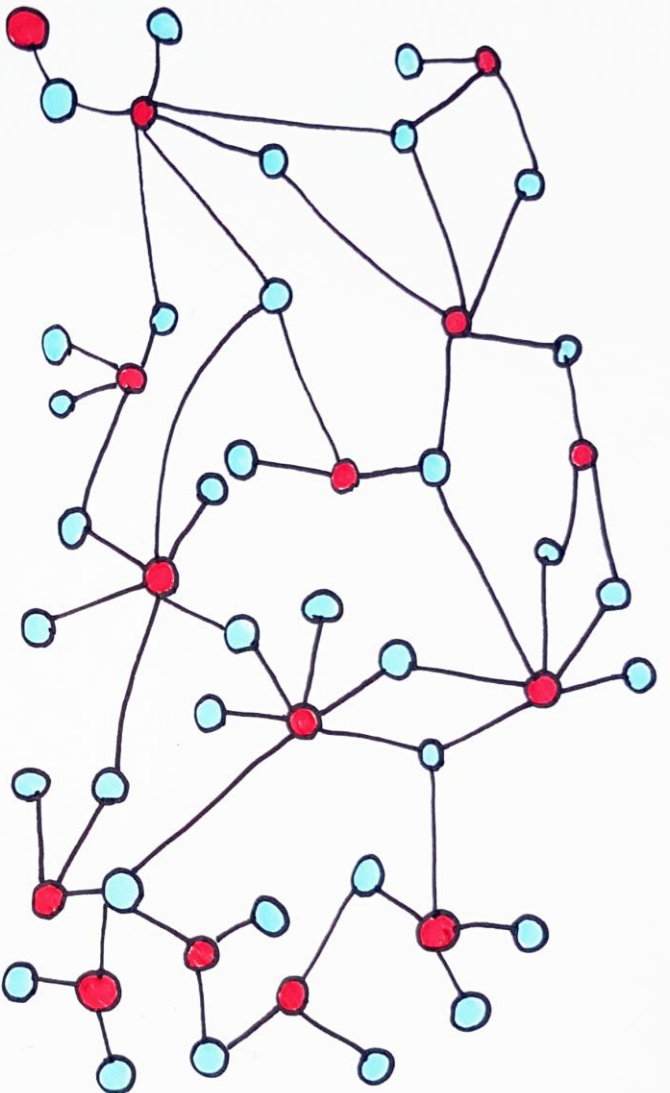


Go to the filter list and select "Women"

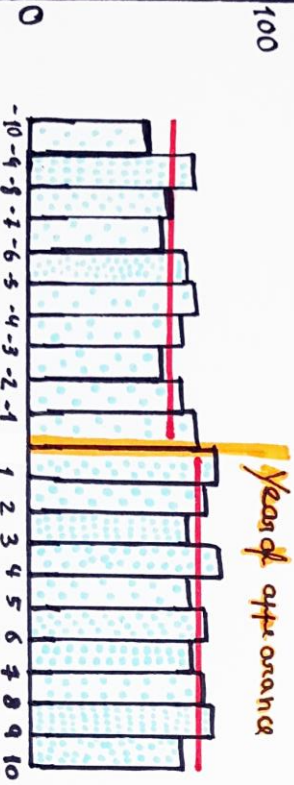


Compare the lines before and after SVU to understand how their gender affect the progression.

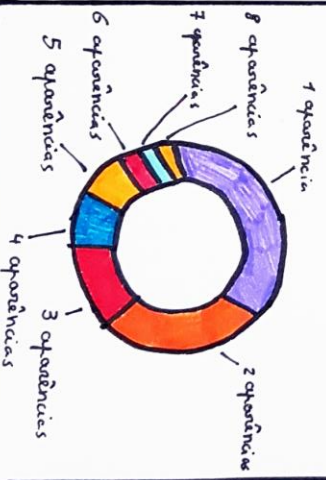
Suspects



Timeline



Criminal Records



Stats



9 ...



Man

Women

< 21

21-55

755

All

Man

Woman

< 21

21-55

755



Stat 1 e 1



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