Usability Testing

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Targeted User Persona for Interview

- Fans of the Star Wars world.
- Graph viz enthusiasts

Tasks

- Can you identify the most important characters for that episode?
- Can you navigate the connections between the different nodes?
- Can you tell apart the characters that died from one episode to another?

Prioritized Feedback from Interviews

- The graph requires clear labeling and meta data explaining what it is showcasing along with what each circle is representing
- The metric table requires a legend explaining the metrics and automatic sorting (or availability of sorting for the user) and probably the ability to filter down to top 10 characters or so
- The dead characters require explanation of what those circles mean and how should a user interpret them while moving from one episode to the other
- The placement of episode slider, graph network, metadata and metric table needs to be done in a more design friendly, human readable manner

Interviews

Interview 1

User Description:
Not very familiar with the Star Wars universe but works in the field of Data Science
Notes:

- The visualization is missing labels and other details citing what it's showcasing
- The metrics don't mean much to a layman
- The goal of the graph is not completely clear

User Description:
Star Wars enthusiast with a strong background in visualization developments
Notes:

- Not sure what the nodes on the right floating around mean - it doesn't appear to be useful to the graph
- Place the dead characters at the bottom for a clearer understanding with proper labeling
- Metrics make sense from a data viz point of view but how do they make sense to a Star Wars enthusiast - that isn't clear
- Probably filtering down to top 5
- The only metrics that might make sense to a Star Wars enthusiast are importance of character and contribution to story
- Change the episode slider to the top of the graph or right below the graph, not at the very bottom

Interview 3

User Description: Regular Star Wars fan
Notes:

- What do the colors on the graph mean? What should the user interpret from it? Is it a heatmap or gradient scale of some sort?
- Labeling of nodes could use standardization since it seems to be haphazard at present
- The graph ends are getting cut off and information is lacking
- The graph feels overloaded with characters. Can a filter be provided to narrow down the characters or focus on certain characters? Maybe with colors?
- What do the metrics mean?
- Standardization of metric labels between tooltip and metric table
- How are the rows in the table sorted? Why doesn't the table show connectedness as a metric as well?

Interview 4

User Description: Big Star Wars fan working in the field of corporate finance

Notes: Was able to sort the columns in the metrics table and able to tell the importance of characters by sorting the degree centrality and betweenness metrics. Overall neutral

reaction to the graphics. Asked about the metrics and was able to understand the graph better given the metrics.

- Some of the "dead nodes" were hidden around the SVG
- What does the varying radii of the nodes mean? Does it mean more screentime per episode? If so, why is Jar Jar so big in the 3rd episode? Is it because the radius carried over from the 1st episode
- Was able to figure out the most and least important characters using the metrics table
- One suggestion was to make the nodes highlighted, when hovering over the corresponding characters in the metrics table

Interview 5

User Description: Moderately familiar with Star Wars franchise and an experienced data science professional
Notes:

- Mentioned it was fun to play with the graph but perhaps should come with spoiler alert for those who haven't seen the movies
- Why is there so much whitespace in the screen (on the right of the SVG). The graph could be better spread out around the entire SVG
- Was able to figure out the character importance by sorting data in the metrics tables - but mentioned that the table sorting wasn't obvious

Interview 6

User Description: Someone who works in the data visualization domain on a daily basis and is also a moderate Star Wars enthusiast

Notes:

- Yes, as a user, I can tell who are all the significant characters in an episode.
- There is no option to relate network metrics with any character clicked on the chart, nor can I sort the metrics to know who weighs more or has more weightage.
- From a layman's standpoint, can't tell what each metric mean? For example: what is a degree of centrality, betweenness, etc.

- From the metric, can't tell what that number means? Is it a percentage or something weighted against 1?
- Circles are almost the same size, or at least appear to be the same size. Similarly, if a character had the most little interaction, I can't tell because many circles are the same size.
- In Episode 2, the betweenness is 0.0 in many cases but populated on other metrics, but the chart appears to be separated like a regular chart?
- What do new colors mean? Does it mean new characters? It is not evident, the color changes between each episode. For example, the ANAKIN character has a different color in each episode, and there is no persona to the character. It would be nice to have it consistent.
- There should be some labeling to tell what those left-out bubbles mean; some labeling will make more sense to a user.
- I can't tell the relation between characters; are they directly or indirectly related, are two characters friends or antagonists? It would be nice to name relationships if possible.