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#466249

Assignment 3 Process Book
Once Upon a Time: Gender Analysis of English Fairy Tales

What will the visualization achieve?

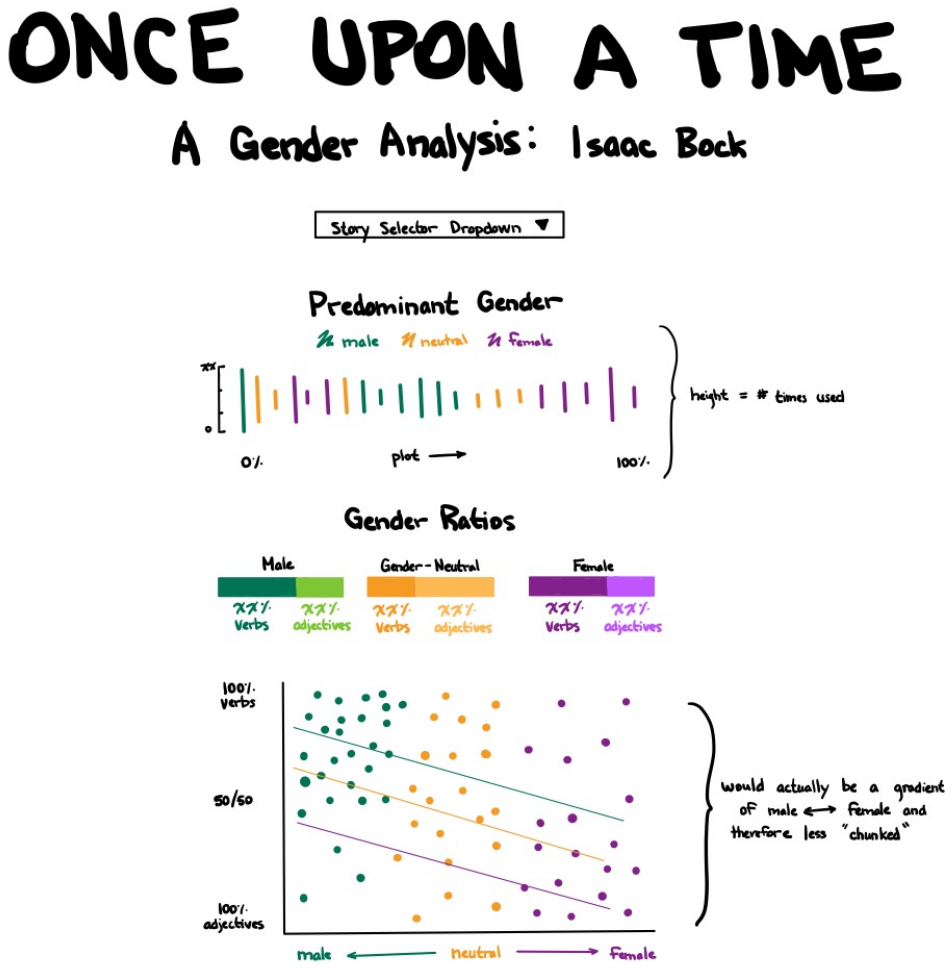
I plan to break down each fairy tale into sentences and words, and use this data to identify gendered language and pronouns (she/her, he/him, they/them, etc.). I would like to then plot gender portrayals and ratios throughout the course of each story to reveal any patterns (e.g. Is one gender more prevalent at the climax of fairy tales? At the end?).

I would also like to search through the words surrounding these pronouns to identify association patterns. Does one gender have a greater ratio of action to description? This could be quantified by counting the number of verbs in comparison to adjectives. Furthermore, I would like to display any specific word associations to visually identify how male, female, and gender-neutral characters/references are portrayed within each story.

What tasks will the visualization support?

For all of the above components, users will be able to see a conglomerate of data from all fairy tales, or use a selector to zero-in on one specific story. The initial data displayed will (hopefully!) be simplistic, to provide a quick overview of all components, and will then display additional tooltips with specific data upon hovering. Hovering on one gender will highlight relevant data in all areas of the visualization to aid with clarity and ease-of-use. Furthermore, all axes and data changes will be transitioned to show and maintain any ratios between different subsets of data.

Design 1



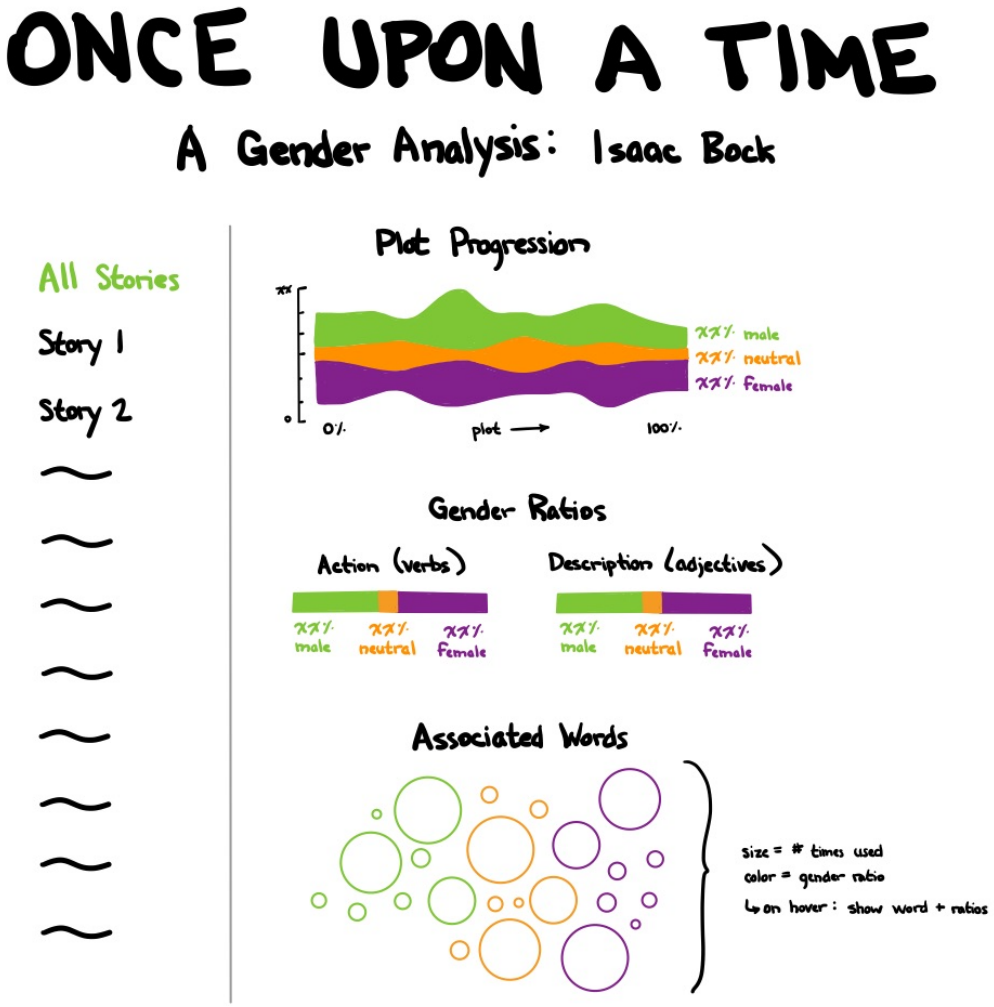
Strengths:

- Predominant gender chart quickly shows exactly which portions of fairy tale plot are dominated by each gender.
- Gender ratios can be quickly interpreted from bars, and detailed data is then visible below for additional review.

Weaknesses:

- Hard to differentiate between different fairy tales without going back through the dropdown each time.
- Scatterplot and trend lines may be hard to immediately interpret, especially if the data don't reveal super explicit patterns.

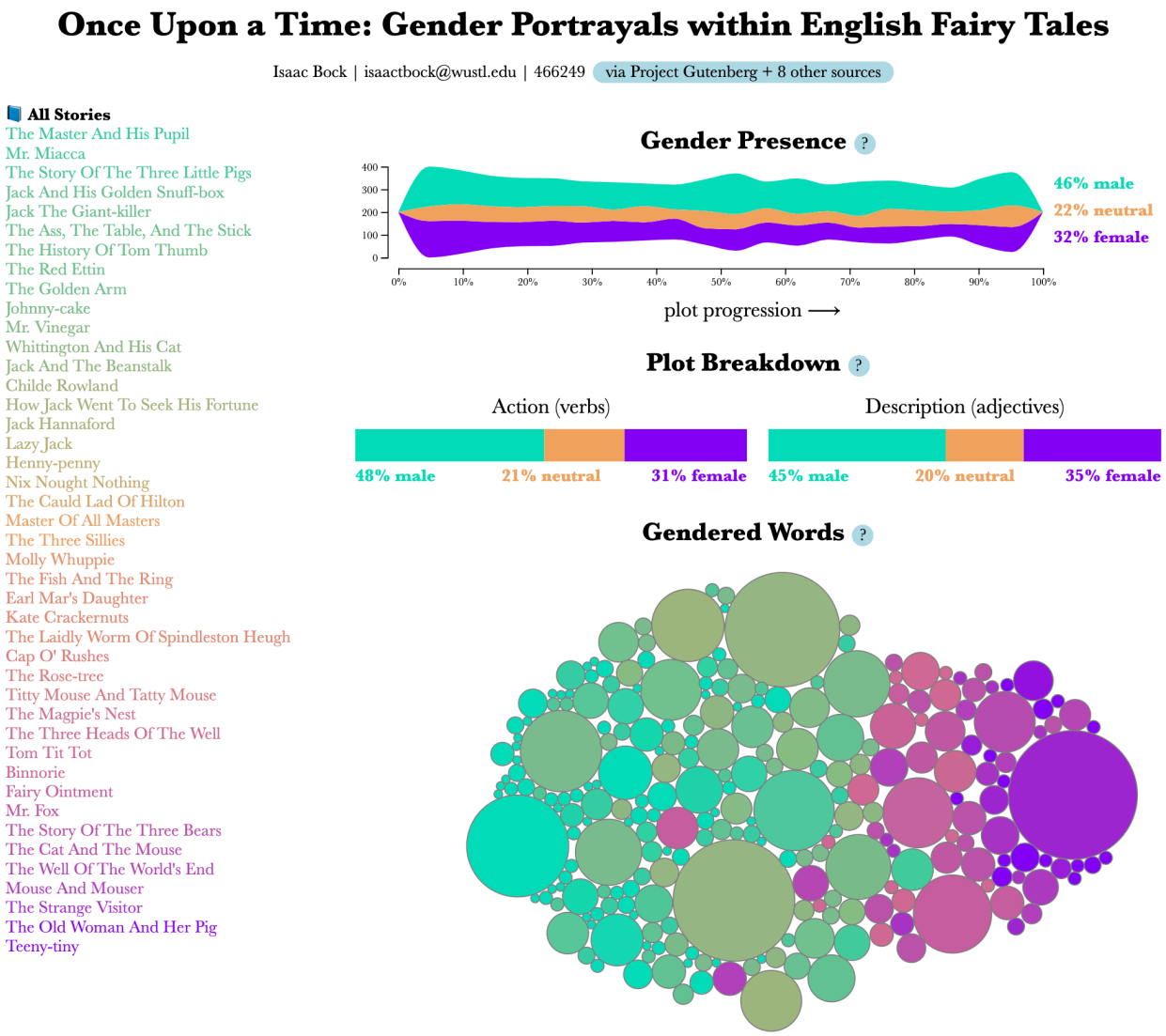
Design 2 (chosen design!)



Selection Justification:

- Most effectively presents all titles down the side for easy access.
- Plot progression streamgraph shows all gender data rather than only one level at a time.
- Gender ratio bars simplified (from 3 to 2), allowing for easier comparison between male, female, and gender-neutral data ratios.
- Bubble chart displays specific word associations will much greater accessibility and effectively maintains size/prevalence ratios.

Final Implementation



Additional Changes / Features:

- Story selector on side quickly reveals overall gender patterns via a gender color gradient and a sorted order.
- Description (“?”) buttons provide additional explanations of data and design choices on hover.