

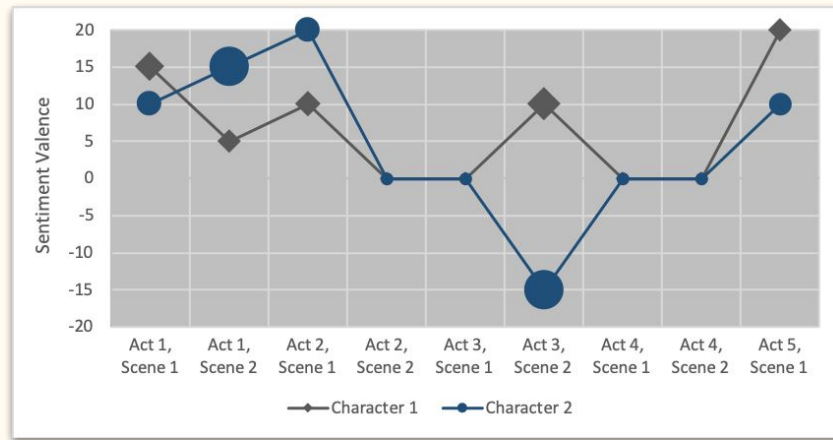
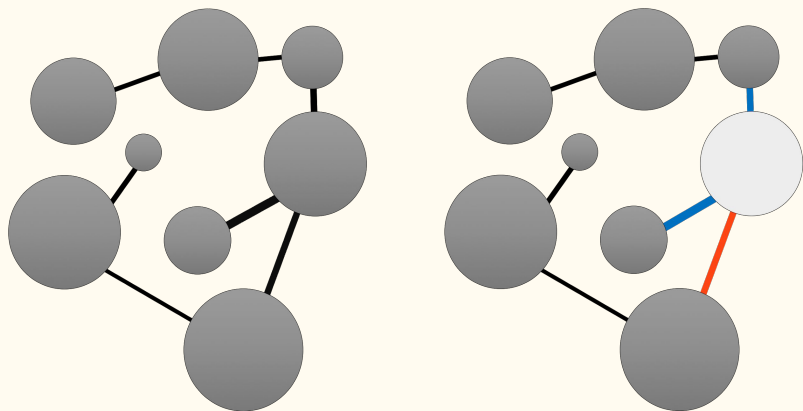
# ShakesPeer - Peer Review 2

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Frances, Kevin, Mint  
November 19, 2019

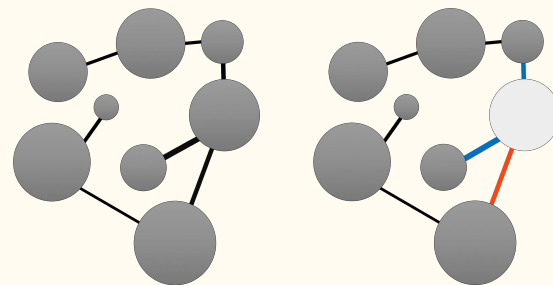
# What's ShakesPeer? (Background)

A tool for visualizing relationships between Shakespearean characters to provide better understanding of the plot. More specifically, it reveals useful and nuanced insights about characters' relationship development over time.

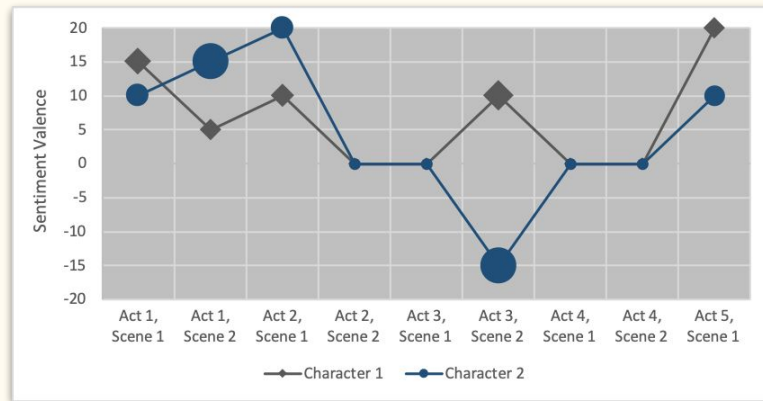


# What's ShakesPeer? (Background)

- Main view
  - View characters & who they interact with
  - Nodes highlighted when selected
  - Outgoing links are color-encoded based on sentiment
- Relationship view
  - See sentiment progression between a pair of characters
  - Size of glyph encodes # of words spoken by character per scene
  - Y-position encodes sentiment valence



Main View



Relationship View

# Status

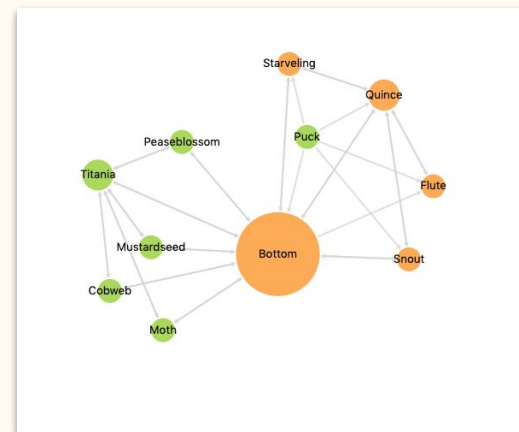
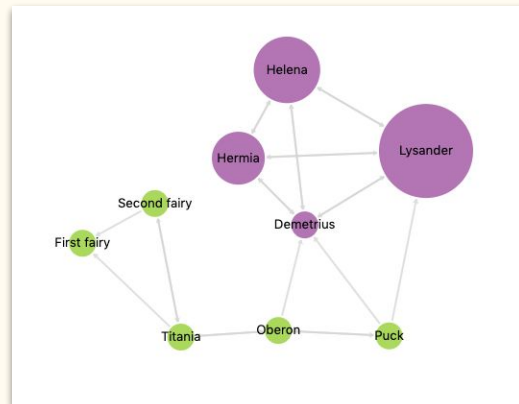
- Done from Peer Review 1
  - Data collection and cleaning
  - Setting up code framework and GitHub repo
  - Research on and implement character-to-character sentiment analysis
  - Calculate character's speech distribution/scene
- Done after Peer Review 1
  - Further clean the data to improve sentiment analysis result
  - Expand sentiment data to include several lexicons
  - Partial implementation of main view, sidebar menu, and relationship view
- To-Do
  - Finish implementation of each component
  - Implement interactions between views
  - Paper write-up

# Progress on sentiment analysis

- Further preprocess and clean the data, so that the recipient of the sentiment of each speech is more accurate.
- Add a new lexicon, so that the users have an option to choose which lexicon they want to do sentiment analysis on. (Bing Liu and AFINN)

# Progress on main view

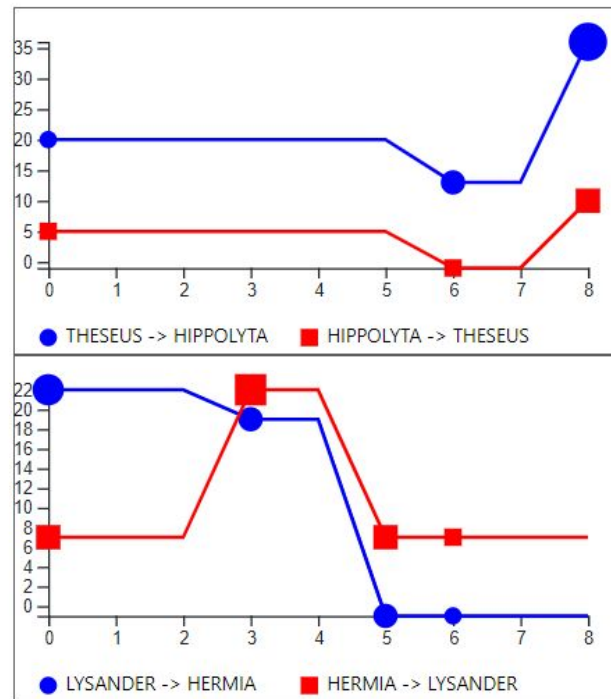
- Nodes are size- & color-encoded
  - Size: # of words spoken by character
  - Color: character type (fairy, actor, etc.)
- D3 force simulation prevents overlapping nodes
  - Repulsive force between each node proportional to radius
- Links have direction
  - Indicated by arrow
- To-Do:
  - Enable user selection of nodes and links, color-encode links based on sentiment (pos/neg/neutral)
  - Fix overlapping links
  - Connect with sidebar and relationship view



# Progress on relationship view

- Relationship view contains a stack of plots
  - Each plot contains 2 line charts for 2 direction of the relationship between a pair of characters
  - Each line shows the sentiment valence for one direction of the relationship for each scene.
  - Each point on the line is size-coded for the number of words that create the sentiment valence.
- To-Do:
  - Interactions: close a plot, hover above a point on line to see exact value, match line chart color to color of nodes in the main view

## Sentiment Valence



# Progress on sidebar

- Thinking about different ways to filter/sort/select...
  - Select by scenes/acts
  - Select by characters
  - Select by relationships
- Linked to main view
- Status: Implementing bits and pieces along the way - currently, just skeleton of sidebar panel.

## Scenes

Act I

Act II

## Characters

Titania

Lysander

Hippolyta

Helena

Puck

## Relationships

Titania <-> Lysander

Hippolyta <-> Helena



# Feedback

- What type of derived data about each character or pairs of characters would be useful to include?
  - What we have so far:
    - Character type
    - How often they speak
    - Who they speak to
- Any general suggestions for improvement?