Get Started Guide

Content

Homepage

Portrayal is a tool for visualizing different character traits identified by natural language processing (e.g., emotions, actions). At its core, it is a tool for analyzing literary works.

To use the tool, please visit https://character-traits.herokuapp.com/home. When you load the webpage for the first time, it will take a few seconds to reboot. Please wait patiently. You will see a list, like the one on the right in the page. The list shows stories preloaded in the tool. At this moment, we have four preloaded stories:

> **Sample Projects**
>
> alice_in_wonderland
>
> persuasion
>
> the_quest_of_the_silver_fleech
>
> the_yellow_wallpaper

1. Persuasion by Jane Austen, Wikipedia, Sample Question to fill out (link removed).
2. The Yellow Wallpaper by Charlotte Perkins Gilman, Wikipedia, sample questions to fill out
3. Alice in Wonderland by Lewis Carroll, Wikipedia, sample questions to fill out
4. The Quest of the Silver Fleece by W. E. B. Du Bois, Amazon Book, sample questions to fill out.

Let's click on Persuasion from the list and see what happens.
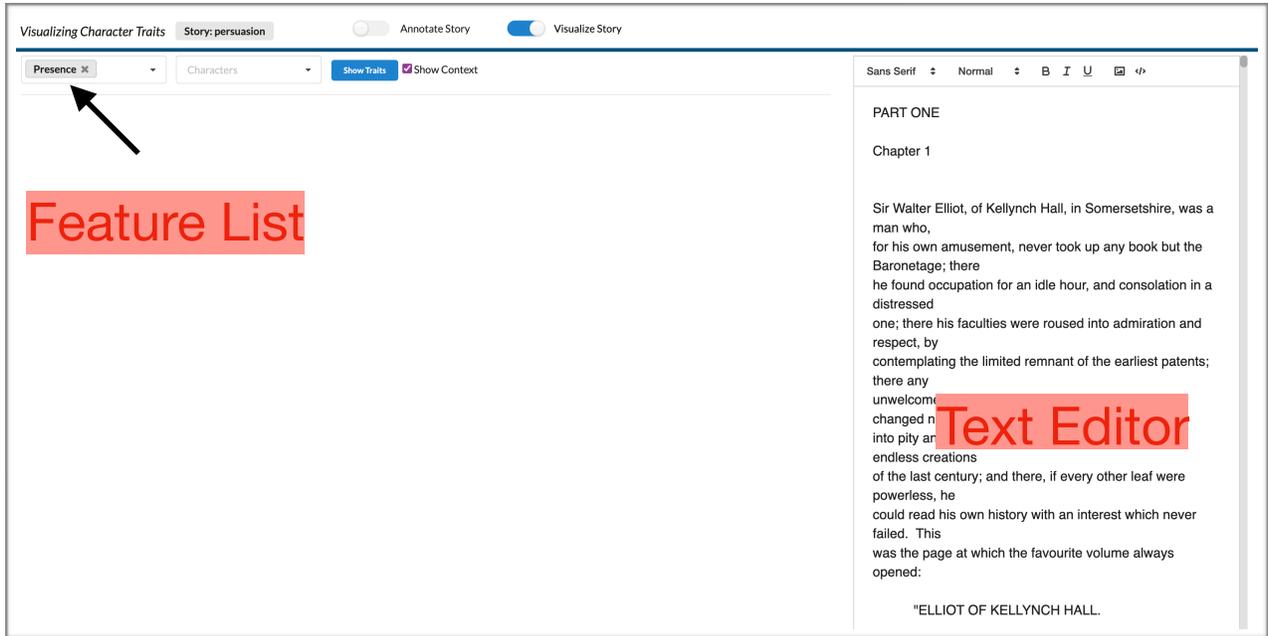
Analysis Page

On loading the analysis page, you will see an interface like the figure above. On the right-hand side, there is a text editor where you can read the story (Persuasion in the example). On the left side, there are two dropdown. Let's look at the first one, named Features. The dropdown defaults to the option **Presence.** Let's click on the **Show Traits** button.
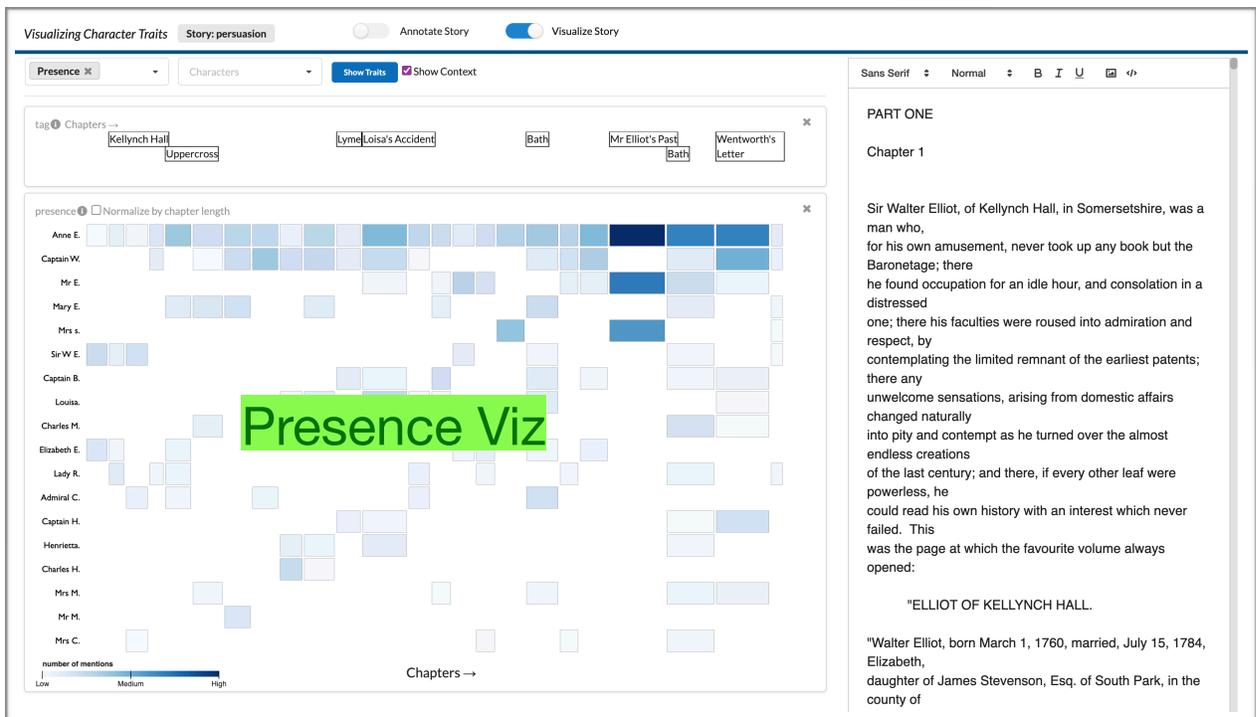
You will see a figure like above. In the middle there is a matrix like visualization. This visualization shows the number of mentions for each character in the story. Each tile shows the number of mentions for a character in a chapter. The brighter the color, the higher the presence of the character in that chapter.

The characters are shown on the left hand side. The length of a tile shows how long a chapter is. A few insights are apparent from the visualization:
1. Anne Elliot (the top row), the lead character, is present throughout the story.
2. In the first chapter (left most column), there's three significant characters: Anne Elliot, Sir Walter Elliot, and Elizabeth Elliot.

Interaction With a Visualization

Mouse Hover

Let's see what more insights we can gather from this visualization. Try taking your mouse over a tile. I have taken my mouse over a tile on the top row.
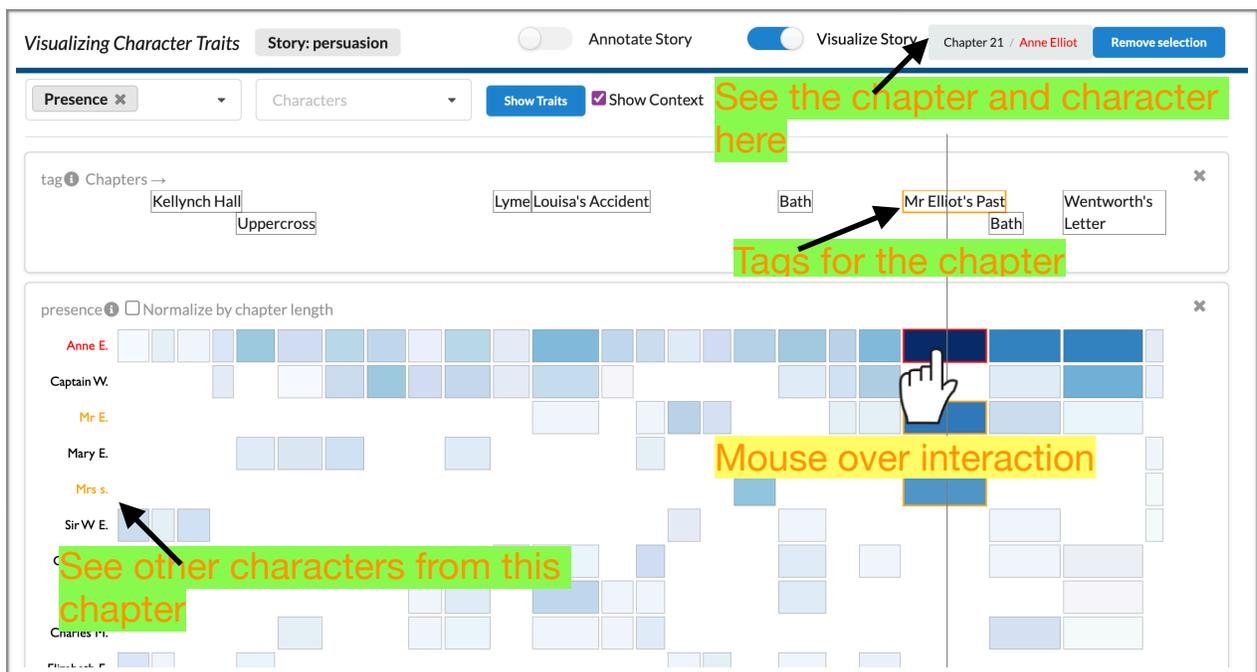
The corresponding chapter (Chapter 21) and character (Anne Elliot) is shown on the top of the visualization. At the same time, all characters from this chapter is

highlighted on left side, so are the tags that show contextual information about the chapter.

Mouse Click

We have seen mouse hover interaction. Let's now click on a tile (Chapter 21). The visualization updates with some animation! The new tiles now represent sentences of the selected chapter (Chapter 21).
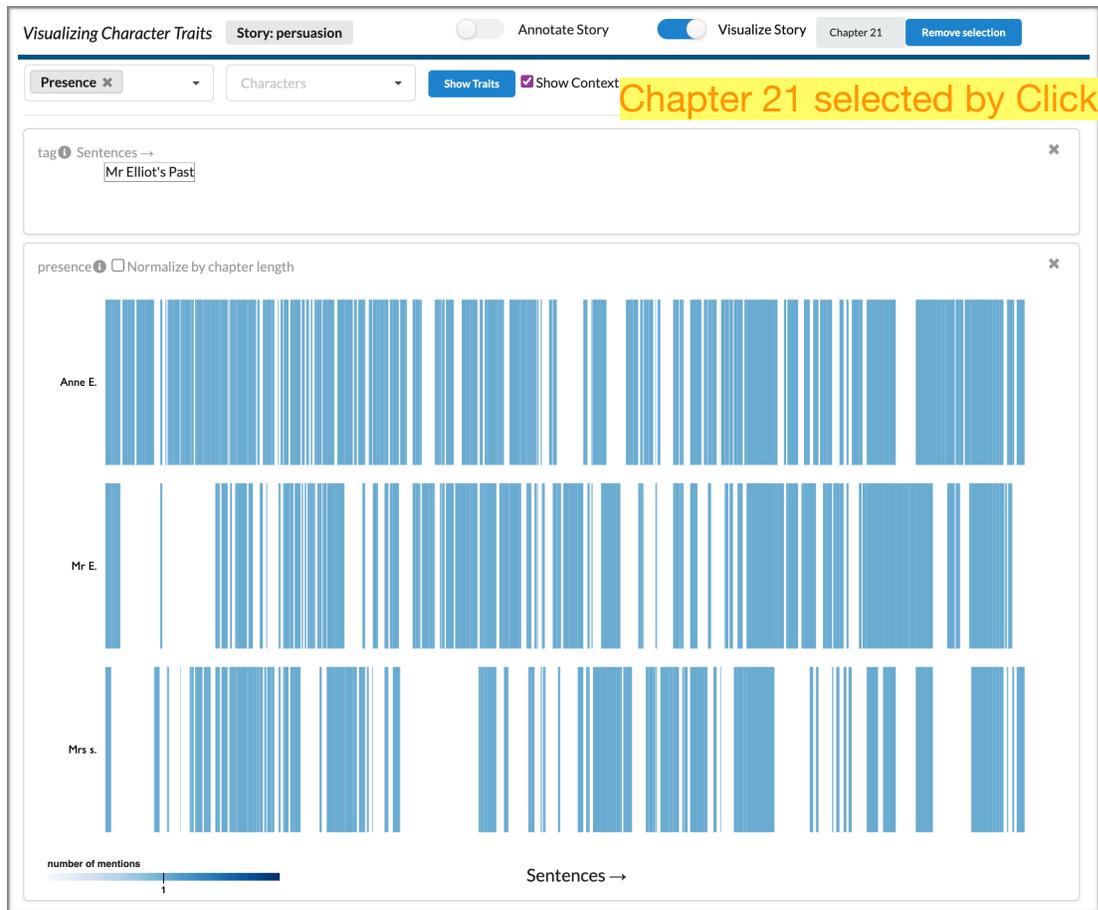
You can interact with these tiles the same way we did earlier. For example, let's take the mouse over a tile in this view. On hover, the corresponding text is highlighted with bold text as well as the character (Anne Elliot in this case) that we hovered over on (figure below).

Here Mrs Smith paused a moment; but Anne had not a word to say, and she continued--

"This was the light in which it appeared to those who knew the family,
long before you returned to it; and Colonel Wallis had his eye upon
your father enough to be sensible of it, though he did not then visit
in Camden Place; but his regard for Mr Elliot gave him an interest in
watching all that was going on there, and when Mr Elliot came to Bath
for a day or two, as he happened to do a little before Christmas,
Colonel Wallis made him acquainted with the appearance of things, and
the reports beginning to prevail. Now you are to understand, that time

See Direct Definitions

We will now go back to the Feature dropdown. Let's select a different character trait to visualize. This time we select Direct Definition!

Click on the Show Traits Button again. You will see an empty canvas in the middle with character names on the left. But, if
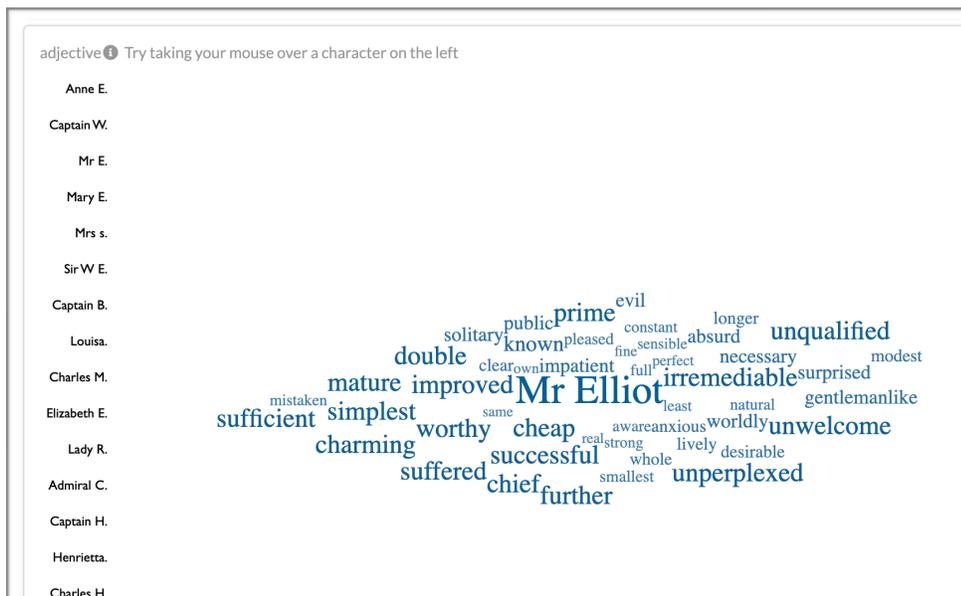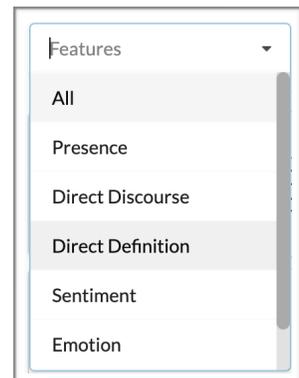
you take your mouse over a character name, you will corresponding adjectives used for that character. For example, the figure below shows adjectives for the character Mr. Elliot. It's that simple!

One more thing you can do is to take your mouse over a word. The word will be highlighted in the text. For example, I have highlighted the word "Cheap" in the text.

man he had not the smallest value for it. **His chance for the Kellynch estate was something, but all the honour of the family he held as cheap as dirt.** I have often heard him declare, that if baronetcies were

Visualize Multiple Features Together

Okay, now we have come to the fun part. Up to this point, we have seen one character trait at a time. But, you can choose multiple together. For example, let's select "Sentiment" and "Emotion" from the "Feature" dropdown.
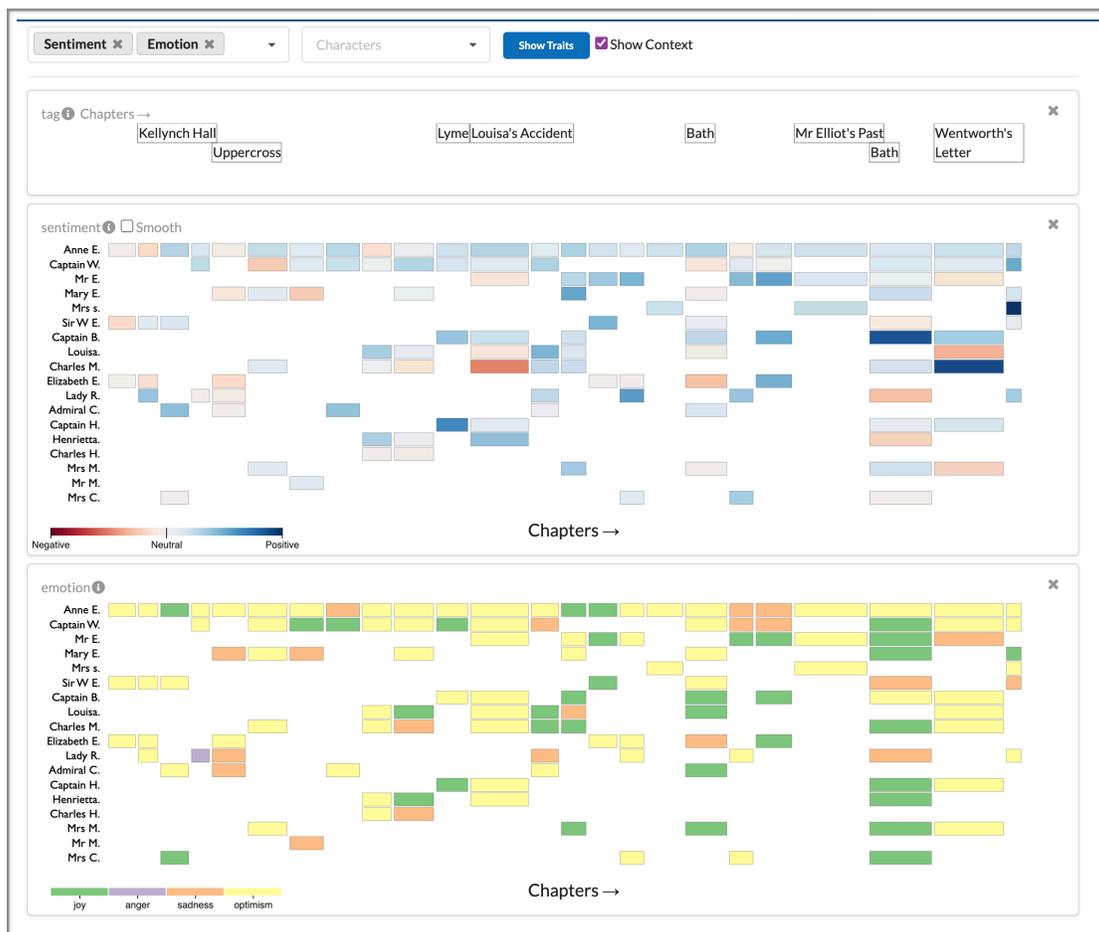
You will see two visualizations like above. If you look closely, they are the same visualizations as the "Presence" visualization we saw at first. However, they now encode average sentiments and dominant emotions for characters in each chapter. We can use same mouse interaction (hover and click) with these visualizations.

Select Characters

Now, you may not be interested in all the characters of a story. You can select characters of interest by using "Characters" dropdown (on the right).

And the visualization will be updated accordingly once we click on the "Show Traits" button again.
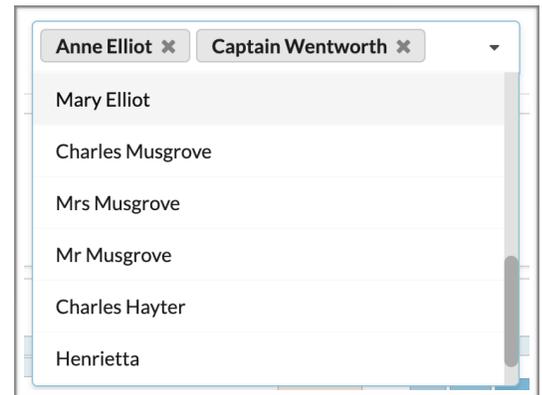
There's a lot more to explore in the tool. I hope you enjoy it as much as we enjoyed building it!