Text-to-speech Sentiment Analysis App

User Manual

Skylar Reichle

Jenna Chiarella

Maci Hadley

Madison Champion

Department of Computer Science and Software Engineering Samuel Ginn College of

Engineering, Auburn University

COMP 4710 Senior Design Project Digital Humanities Team #1

April 30, 2025
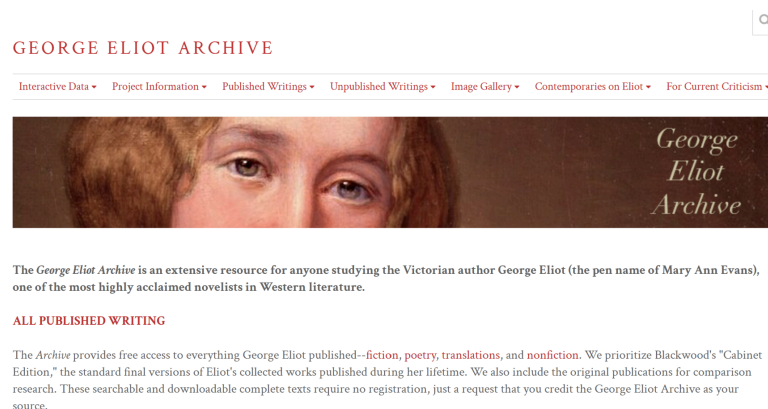
Table of Contents

1 Omeka

1.1 About

A user will be able to access George Eliot's Nonfiction Audio-Visual through the George Eliot Archive website. A user will be able to select George Eliot's nonfiction work and interact with audio files, sentiment analysis text files, and sentiment graphs for each of the works.

1.2 How to

1.2.1 Access the website

A user can type in the link https://georgeeliotarchive.org/. A user will be brought to the main page which is shown below.

1.2.2 Access GE's Nonfiction Audio-Visual

We are still in the process of waiting for our sponsor to make the page public on the George Eliot Archive website. Once it is, a user can type "GE's Nonfiction Audio-Visual" into the search menu to find our page. A user can also look for our page under the Interactive Data tab.

GE's Nonfiction Audio-Vi: 🔍   ✕

Search using this query type:
◉ Keyword
○ Boolean
○ Exact match

Search only these record types:
☑ Item
☑ File

Advanced Search (Items only)

The *George Eliot Archive* is an extensive resource for anyone studying the Victorian author George Eliot (the pen name of Mary Ann Evans), one of the most highly acclaimed novelists in Western literature.

A user will be taken to our page as seen below.
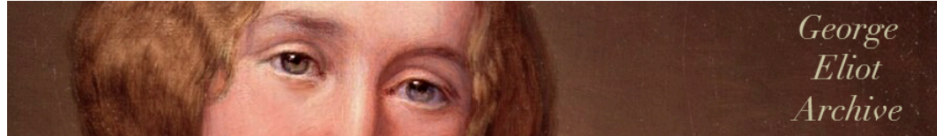
Interactive Data ▾   Project Information ▾   Published Writings ▾   Unpublished Writings ▾   Image Gallery ▾   Contemporaries on Eliot ▾   For Current Criticism ▾

George Eliot Archive

GE's Nonfiction Audio-Visual

Welcome to our interactive page that allows you to listen and see sentiment analysis in George Eliot's nonfiction works!

Under any title, click "Expand" to be redirected to the audio and sentiment analysis files for that specific text.

You will be able to find a text-to-speech recording that will play the nonfiction work – like an audible recording. You will be able to adjust the speed to your preference too.

Below the audio player you will see a printout of that nonfiction work with sentiment analysis. This means that words that have a positive sentiment or emotion will be colored orange and those words that are negative will be blue.

Below the text you will see a bar graph displaying the sentiment scores so you can visually see how much positive and negative sentiment is within the text.

Be sure to click on other titles too to compare the sentiment of George Eliot's many nonfictions works!

By providing audio files, people have a new way to access George Eliot's nonfiction text without needing to read it. By providing sentiment analysis, within the actual text, viewers get to understand George Eliot's feelings or emotions and can get a new perspective of the text. The graph also helps viewers see the sentiment in the text and can be used to visually compare the sentiment from one text to another!

See source information below the model, with further documentation available at the George Eliot Archive GitHub site.

Search nonfiction entries...

Notice of The Comic History of England [November 1846]

Expand

Poetry and Prose, from the Notebook of an Eccentric: The Wisdom of the Child [February 1847]

Expand
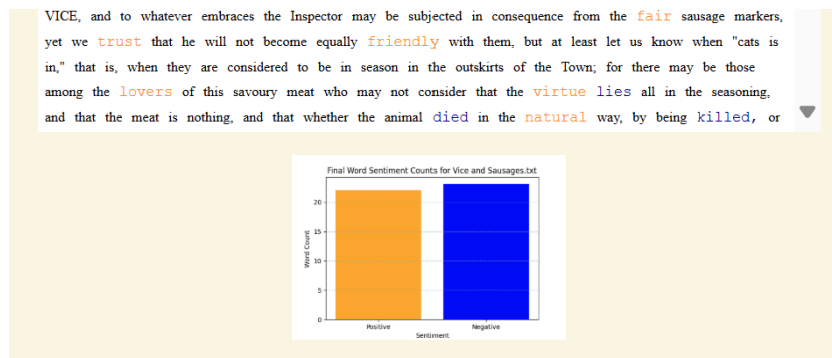
Vice and Sausages [February 1847]

Review of The Nemesis of Faith by J.A.

1.2.3 Choosing a Specific Nonfiction Work

A user can select a specific work of nonfiction by either scrolling through all titles or use the search bar within the page to find a work by title or date. A user can then click on the "Expand" button under the title of the nonfiction work they desire, to be able to see the audio file, sentiment analysis file, and sentiment analysis graph for that work.

The sentiment analysis graph is under the sentiment analysis file as seen below when a user scrolls on the page past the sentiment analysis file.

1.2.4 Interacting with a Specific Nonfiction Work

A user can listen to the text-to-speech audio file of the nonfiction work as well as read along with the sentiment analysis file. The sentiment analysis file provides the sentiment of the work within the text so a user can see the sentiment in context to the work and therefore get a better understanding or perspective of the work. The sentiment analysis graph below the sentiment analysis file gives the user a visualization of the amount of both positive and negative sentiment within the text. This allows the user to get a very interactive and immersive experience of George Eliot's nonfiction works.