## **Digital Integration Teaching Initiative**

Schedule a meeting: <a href="mailto:bit.ly/diti-office-hours">bit.ly/diti-office-hours</a>



# ENGW 3307: Advanced Writing for the Sciences Cecelia Musselman Web-Based Tools for Text Analysis and Exploration

### **Tools for Uploading/Pasting & Analyzing Texts**

- **Word Counter**: This is a user-friendly basic word counting tool; it allows you to count single words, bigrams, and trigrams in plain text files and to download spreadsheets with your results. The max file upload is 10MB. <a href="http://databasic.io/en/wordcounter/">http://databasic.io/en/wordcounter/</a>
- **Same Diff**: With this tool, you can upload two files to see which words appear in both, as well as which words are unique to each file; you can download spreadsheets with the counts for each text. Max file upload is 10MB. <a href="http://databasic.io/en/samediff/">http://databasic.io/en/samediff/</a>
- Word Trees: This is a good way to see patterns in word usage, based on words that appear
  before and after a term or terms of interest. There are some restrictions in size; fewer than 1
  million words should work, but loading that much text in might be slow.
  <a href="http://jasondavies.com/wordtree/">http://jasondavies.com/wordtree/</a>
- **Lexos:** This is an excellent tool for preparing and analysing digital texts; it offers several very sophisticated options for text preparation, and a wide range of different analytical possibilities as well. Importantly, it also preserves all the changes that are made to a text, so that any results can be reproduced. <a href="http://lexos.wheatoncollege.edu/">http://lexos.wheatoncollege.edu/</a>
- **Drag-and-Drop Sentiment Analysis**: This is an exploratory tool developed by Alesu Bajak in Northeastern's School of Journalism. It lets you see the top negative and positive words, as well as common bigrams and trigrams. <a href="http://storybench.shinyapps.io/textanalysis/">http://storybench.shinyapps.io/textanalysis/</a> For more on how sentiment analysis works, see: <a href="http://programminghistorian.org/en/lessons/sentiment-analysis">http://programminghistorian.org/en/lessons/sentiment-analysis</a>
- **Plot Mapper:** This is another experimental tool developed at Northeastern; it was created by Nick Beauchamp in Political Science. This one is a bit more experimental/abstract, but it can be fun to play with and might help you think about the shape of familiar texts in new ways. <a href="http://nickbeauchamp.com/projects/plotmapper.php/">http://nickbeauchamp.com/projects/plotmapper.php/</a>
- Voyant: This suite of tools gives you counts of words and lets you compare patterns in word locations and frequencies, or examine keywords in context, along with a few other options.
   Voyant will let you upload larger files than most other interfaces (up to as many as 4 million words, though it may take more than one try to successfully upload very large files).
   <a href="http://voyant-tools.org/">http://voyant-tools.org/</a>

### **Tools for Further Exploration**

• **To See or Not to See**: This interactive visualization draws on the TEI encoding in the Folger Digital Texts collection to allow you to explore several of Shakespeare's plays by their acts & scenes, speeches, and stage directions. You can also click on speeches to see their contents

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and more information about the word counts and other features of different characters. <a href="http://www.thomaswilhelm.eu/shakespeare/output/twelfthnight.html/">http://www.thomaswilhelm.eu/shakespeare/output/twelfthnight.html/</a>

- Serendip: This is a tool that supports topic modeling, which is a method that uses machine
  learning to discover "topics," or sets of related terms, in collections of texts.
  http://vep.cs.wisc.edu/serendip/#gettingstarted/
- Women Writers Vector Toolkit: This is a prototype developed by the Women Writers
   Project that lets you explore word embedding models, which are a machine-learning based
   method for discovering relationships between words in large collections of texts.
   http://lab.wwp.northeastern.edu/wwvt/

#### Additional Resources:

- **NULab for Texts, Maps, and Networks, Resources:** This page contains a wide range of resources and datasets. <a href="http://web.northeastern.edu/nulab/resources/">http://web.northeastern.edu/nulab/resources/</a>
- Women Writers Project: This project publishes pre-Victorian texts by and attributed to
  women, and also includes a lab with experimental visualizations and exploratory tools.
  http://wwp.neu.edu/
- **Programming Historian:** This site includes many different tutorials for a broad range of methods of digital analysis; it is not exclusively focused on history and includes materials that are useful for literary studies as well. <a href="http://programminghistorian.org/">http://programminghistorian.org/</a>