

# Extracted Features in the Wild

See how researchers and developers are using the EF dataset in real-world projects.



## Share your work

Do you have a project or tool using the HTRC Extracted Features Dataset? Let us know at [htrc-help@hathitrust.org](mailto:htrc-help@hathitrust.org)

## Projects

### Word Similarity Tool, David Mimno

A web-based tool for viewing similar words to a query, for each year from 1800 to 1923.

Search for:

1923	washington	columbia	ohio	york	chicago	montgomery	west	boston	michigan
1922	washington	dawes	pennsylvania	columbia	york	dent	president	city	washington.
1921	washington	columbia	washington.	national	pennsylvania	president	dent	boston	york
1920	washington	boston	columbia	illinois	york	washington.	ohio	city	pennsylvania
1919	washington	illinois	address	york	vice	national	boston	washington.	tribune
1918	washington	york	illinois	boston	baltimore	american	national	president	pennsylvania
1917	washington	boston	washington.	columbia	union	address	charleston	baltimore	vice
1916	washington	washington.	boston	virginia	columbia	charleston	massachusetts	wilson	president
1915	washington	washington.	charleston	virginia	massachusetts	louis	columbia	baltimore	portsmouth
1914	washington	columbia	denver	philadelphia	maryland	louis	baltimore	virginia	ohio
1913	washington	philadelphia	baltimore	charleston	american	address	pennsylvania	columbia	massachusetts
1912	washington	va.	columbia	charleston	louis	cumbian	baltimore	boston	american

For a word that you're investigating, the tool generates a table showing the words that occur in similar contexts as the queried-for word. Instead of entering the word in the search box, you can also enter the word directly into the browser (by adding `?q=[word]` after the URL <http://mimno.infosci.cornell.edu/wordsim/nearest.html>), like so:

<http://mimno.infosci.cornell.edu/wordsim/nearest.html?q=caste> to have the queried-for word be "caste".

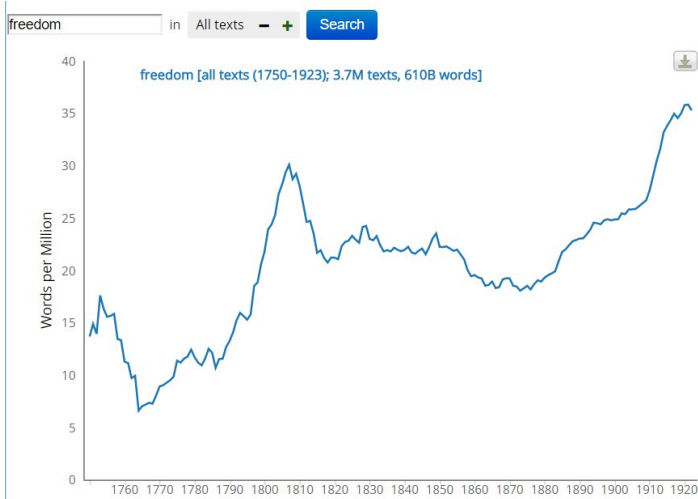
Here's an example of the kinds of useful observations the tool empowers you to make:

With the above query for "caste", that is, <http://mimno.infosci.cornell.edu/wordsim/nearest.html?q=caste>,

you can notice a few interesting things: from the generated table for "caste", it appears that "suffering" was a pretty frequent contextual word for "caste" in the early nineteenth century, but then "suffering" seemed to drop out of the context by the late nineteenth century. On the other hand, "degradation" seemed to remain, more or less, part of the context of the word "caste" throughout. You can also notice that the occurrence of "race" in the same context as "caste" becomes more frequent after 1870 or so. Before 1870, the instances of "race" in the same context as "caste" was less pronounced.

### HT+Bookworm

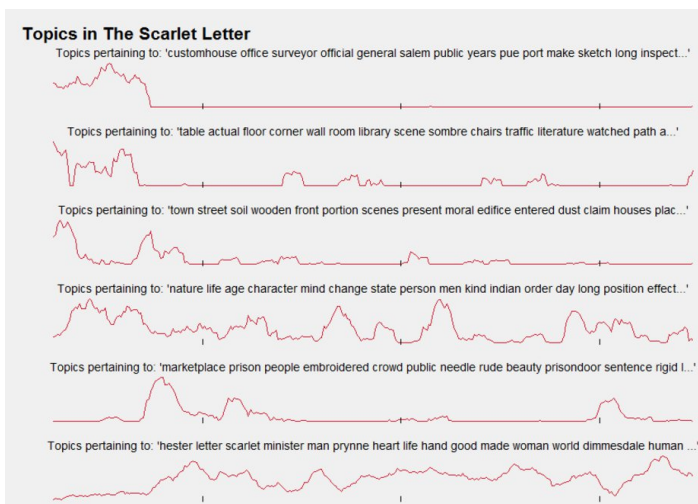
An interactive, faceted, visualization of terms across the HathiTrust collection, built on the EF dataset.



Here is [our recent slide deck](#) providing an overview of the HT+Bookworm project.

## Within-Book Topic Modeling, Peter Organisciak







An approach for visualizing thematic trends within a book.



## A Topic Model of Fiction, Jonathan Goodwin

A topic model of fiction, based on the genre-classified dataset (only 1920-22); it may be extended once extracted features are available after 1922.

## Top words

Word	Weight
squire	
farm	
road	
lane	
village	
cottage	

## Berkeley Data Science Module, Chris Hench and Cody Hennesy

A Jupyter Notebooks-based curriculum for using HTRC Extracted Features in the classroom developed at the University of California, Berkeley.

```
539 lines (538 sloc) | 17.2 KB | Raw | Blame | History | [ ] | [ ] | [ ]
```

### Analyzing volumes for word frequencies

This notebook will demonstrate some of basic functionality of the Hathi Trust FeatureReader object. We will look at a few examples of easily replicable text analysis techniques — namely word frequency and visualization.

```
In [ ]: %%capture
        pip install nltk

In [ ]: from htrc_features import FeatureReader
        import os
        import numpy as np
        import pandas as pd
        import matplotlib.pyplot as plt
        plt.style.use('fivethirtyeight')
```

## Tools

### HTRC Feature Reader

A Python library that scaffolds Pandas use of EF data. With [example](#) scripts.

## Tutorials and Lessons

Send us your Lessons or Tutorials related to the EF Dataset.

Python code for some simple examples of "literary sleuthing":

- [Estimating the proportion of poetry-to-prose in a volume, based on the proportion of capitalized letters \(Coleridge wrote a lot more prose than Keats did!\)](#)
- [Making use of the incidence of a word's occurrence to draw inferences \(\*Little Dorrit\* by Charles Dickens mentions "prison" a lot more than his \*Bleak House\* does...\)](#)
- [Identifying that volume in a workset in which a specified word occurs the most times \(Which of the English romantic poets was the greatest "dream"-er among them all?\)](#)

## Blog Posts

Underwood, Ted. June 3, 2014. "A window on the twentieth century may be about to open." *The Stone and the Shell*. Blog. <http://tedunderwood.com/2014/06/03/a-window-on-the-twentieth-century-may-be-about-to-open/>

Mimno, David. 2014. "Word counting, squared." *David Mimno*. Blog. <http://www.mimno.org/articles/wordsim/>

Forster, Chris. 2015. "A Walk Through the Metadata: Gender in the HathiTrust Dataset." (Based on genre-classified subsets.) <http://cforster.com/2015/09/gender-in-hathitrust-dataset/>

Underwood, Ted. 2015. "How Scholars Can Support Digital Libraries." Europeana Research. <http://research.europeana.eu/blogpost/text-mining-2-how-scholars-can-support-digital-libraries>