



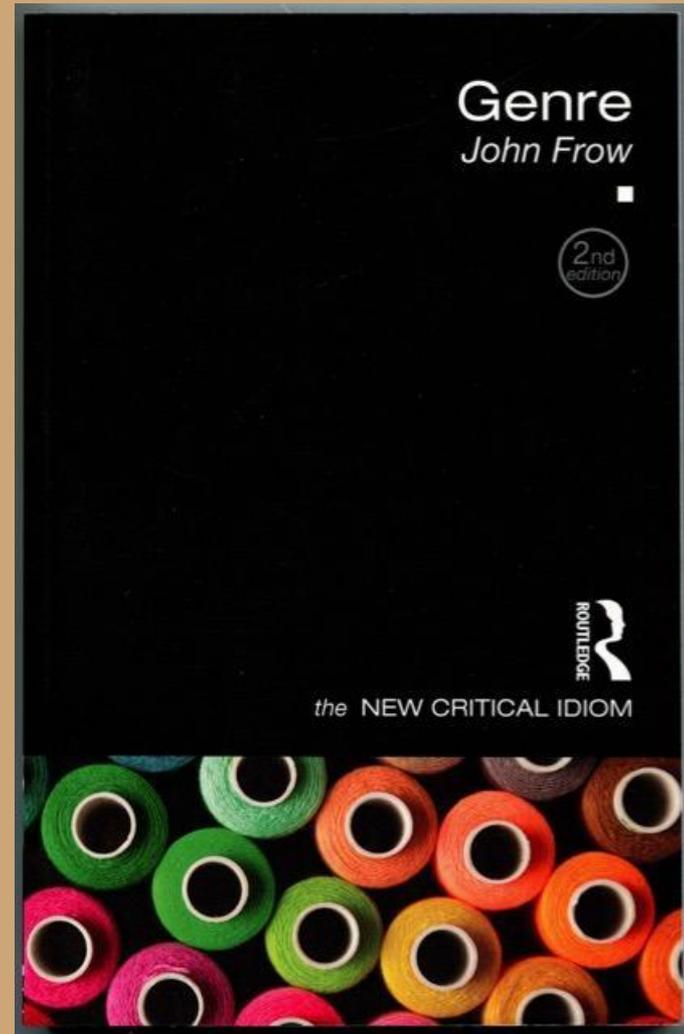
The Trouble with Genre

Dr. Brian S. Matzke
May 23, 2018



“Genre is, amongst other things a matter of discrimination and taxonomy: of organizing things into recognizable classes. In this respect it belongs to a much larger group of classifying activities that permeate every aspect of daily life.”

- Frow, John (2015). *Genre*. London: Routledge. pp. 51





MARC

MARC 21 Bibliographic - Full

First Indicator

Type of heading

- Basic

0 - Faceted

Second Indicator

Thesaurus

0 - Library of Congress Subject Headings

1 - LC subject headings for children's literature

2 - Medical Subject Headings

3 - National Agricultural Library subject authority file

4 - Source not specified

5 - Canadian Subject Headings

6 - Répertoire de vedettes-matière

7 - Source specified in subfield \$2

Subfield Codes

\$a - Genre/form data or focus term (NR)

\$b - Non-focus term (R)

\$c - Facet/hierarchy designation (R)

\$v - Form subdivision (R)

\$x - General subdivision (R)

\$y - Chronological subdivision (R)

\$z - Geographic subdivision (R)

\$0 - Authority record control number or standard number (R)

\$1 - Real World Object URI (R)

\$2 - Source of term (NR)

\$3 - Materials specified (NR)

\$5 - Institution to which field applies (NR)

\$6 - Linkage (NR)

\$8 - Field link and sequence number (R)

[The Library of Congress](#) » [Librarians, Archivists](#) » [Standards](#)

Source Codes for Vocabularies, Rules, and Schemes

LIBRARY OF CONGRESS, NETWORK DEVELOPMENT & MARC STANDARDS OFFICE

[Home](#) [Genre/Form Code and Term Source Codes](#)

Genre/Form Code and Term Source Codes

[Introduction](#)[Genre/Form Source Codes](#)[Genre/Form Source Code Usage in MARC and MODS/MADS](#)

Introduction

Genre/Form Sources contains a list of sources of terms and/or codes indicating the genre, form, and/or physical characteristics of the materials being described in bibliographic records and assigns a code to each source. Sources include lists that contain the following types of information:

- *content types* that indicate the form of communication through which a work is expressed. Examples include: cartographic dataset, notated music, or text.

- *media types* that specify the general type of intermediation device required to view, play, run, etc., the content of a resource audio, stereographic, or video.

- *carrier types* that specify the format of the storage medium and housing of a resource. Examples include audiocassette, microfiche, or online resource.

- *genre types* designate the style or technique of the intellectual content of textual materials or, for graphic materials, aspects such as vantage point, intended purpose, characteristics of the creator, publication status, or method of representation. Examples are: biographies, catechisms, essays, hymns, or reviews.

- *form and physical characteristic types* designate historically and functionally specific kinds of materials distinguished by their physical character, the subject of their intellectual content, or the order of information within them.

Examples are: daybooks, diaries, directories, journals, memoranda, questionnaires, syllabi, or time sheets.

The purpose of this list is to identify the vocabulary used in records. For code assignment, general structure, usage, and maintenance guidelines see [Source Codes for Vocabularies, Rules, and Schemes](#).

Many general subject lists and thesauri, such as the Library of Congress Subject Headings and the Art and Architecture Thesaurus, also contain controlled vocabularies for specifying genre/forms. Thus those general sources may also be used in usage elements identified for genre/form terms, with the appropriate source code (see [Subject Heading and Term Source Codes](#)). Only sources that are specific for genre/form are listed here.

MODS



VRA Core

WORK TYPE

Definition: Identifies the specific type of WORK, COLLECTION, or IMAGE being described in the record.

Data Values for WORK AND COLLECTION type (controlled vocabulary): recommend AAT.

Recommended data values for IMAGE WORK type (AAT terms):

black-and-white transparency, color transparency (for slides or positive transparencies), black-and-white negative, color negative, (for negative transparencies), photographic print (for photographic prints), or digital image.

VRA Core 2.0: W1 Work Type; V1 Visual Document Type

VRA Core 3.0: Type

CDWA: Object/Work-Type; Related Visual Documentation-Image Type

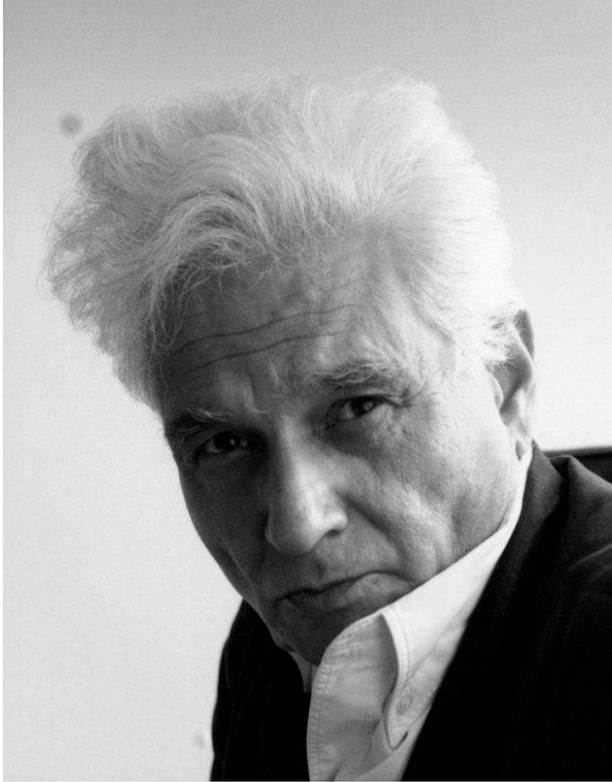
Dublin Core: TYPE

CCO: Part TWO: *Chapter 1: Object Naming*

Not required; Repeatable

Dublin Core

Term Name: type	
URI:	http://purl.org/dc/elements/1.1/type
Label:	Type
Definition:	The nature or genre of the resource.
Comment:	Recommended best practice is to use a controlled vocabulary such as the DCMI Type Vocabulary [DCMITYPE]. To describe the file format, physical medium, or dimensions of the resource, use the Format element.
References:	[DCMITYPE] http://dublincore.org/documents/dcmi-type-vocabulary/



“[T]he law of genre...is precisely a principle of contamination, a law of impurity, a parasitical economy.... I would speak of a sort of participation without belonging--a taking part in without being part of, without having membership in a set.”

- Derrida, Jacques (1980). “The Law of Genre.” *Critical Inquiry* 7(1): 55-81.



Four Questions to Consider:

- How “distant” does your reading need to be?
- What is your vocabulary?
- Who gets to decide your vocabulary?
- What can machine learning do for you?



1. How “distant” does your reading need to be?



Close reading: The careful, intensive examination of an individual passage of text.

Distant reading: The analysis of the whole range of a genre, historical period, or national literature.

Close reading treats literature as data about human experience; distant reading treats literature as data about human cultures.



“[A]ll (or almost all) [recent trends in literary criticism] seek to substantially enlarge the scale at which we discuss literature and literariness.... From this perspective we might say that in the last ten years literary criticism constitutes a crisis of largeness.”

- Hayot, Eric (2013). “Scale, Data, and World Literature.”

“Different scales of literary analysis do require different methods, but if those scales of analysis are inquiring about different aspects of a single social process, there is no reason why the methods should be incompatible.”

- English, James F. and Ted Underwood (2016). “Shifting Scales.”

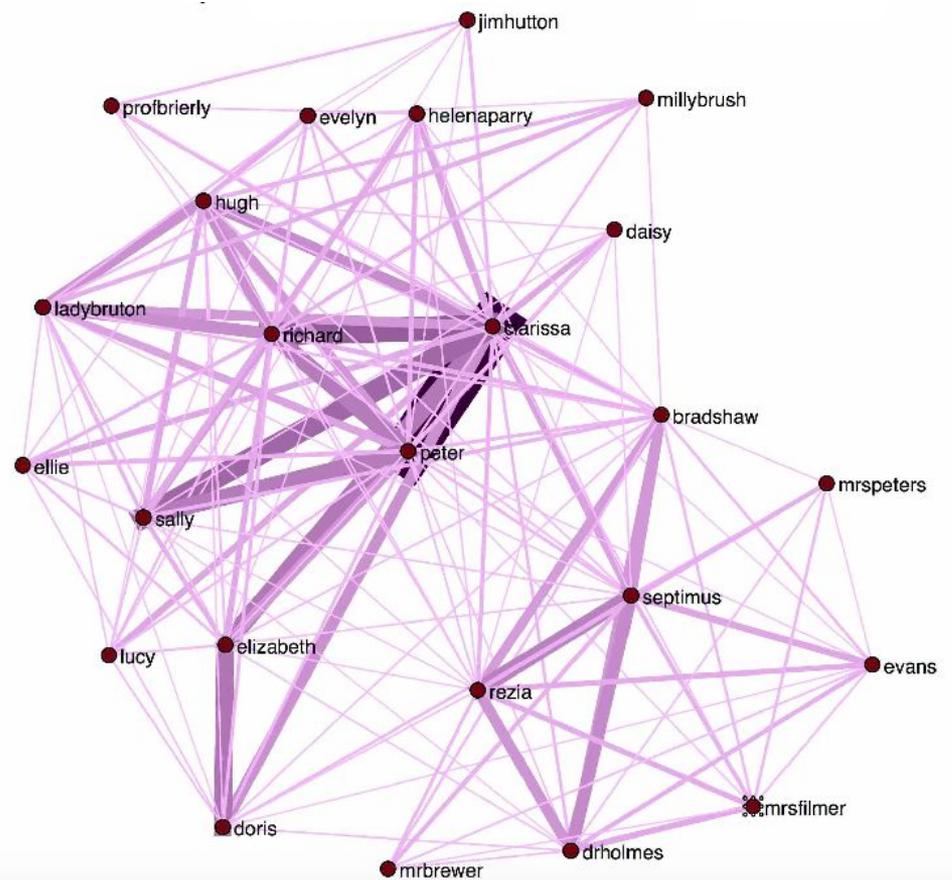
“[W]hen the smallest text, the smallest part of the text, can always be representative of, or in some cases a substitution for, some ‘larger’ claim, one does not need the ‘immense accumulation of facts’ that...characterizes current quantitative literary scholarship.”

- Jin, Jay (2017). “Problems of Scale in ‘Close’ and ‘Distant’ Reading.”



(c) Mrs. Dalloway (Virginia Woolf)

- Nodes: 24
- Density: 0.54
- Clustering: 0.79
- Avg. Degree: 12.33
- Stdev. Degree: 5.02
- Stdev / Avg Degree: 0.41
- Avg. Shortest Path: 1.49
- Diameter: 3



Sack, Graham Alexander (2013). "Character Networks for Narrative Generation: Structural Balance Theory and the Emergence of Proto-Narratives." *Open-Access Series in Informatics*, 32: 183-197.



Underwood, Ted and Jordan Sellers (2016). "The Longue Durée of Literary Prestige." *Modern Language Quarterly*, 77(3): 321-344.

What distinguishes "prestigious" poetry?

- Developed a working definition of "prestigious": books of poetry published in elite periodicals.
- Created two samples of books available in the HathiTrust Digital Library:
 - 360 books of poetry reviewed by elite periodicals between 1820 and 1919.
 - A random selection of 360 books of poetry similarly distributed across the same period.
- Trained a pattern-recognizing algorithm to identify poetic diction by counting word frequencies.
- Used the model to predict whether a book has been reviewed.



December 31, 2015

Software Open Access

paceofchange: Initial release; version used in article.

Ted Underwood

This is the version of code and data actually used in "How Quickly Do Literary Standards Change?" (Underwood and Sellers 2015).

It also supports "The Longue Durée of Literary Prestige," forthcoming in Modern Language Quarterly (2016).

Preview

paceofchange-v1.0.zip

- tedunderwood-paceofchange-a341c1b
 - LICENSE.md 1.1 kB
 - README.md 4.7 kB
 - SonicScrewdriver.py 9.5 kB
 - dunnings_coefficients.py 22.0 kB
 - metafilter.py 8.1 kB
 - modelingprocess.py 2.3 kB
 - parallel_crossvalidate.py 21.6 kB
 - poemeta.csv 116.8 kB
 - poems
 - dul1.ark+=13960=t5fb5xg2z.poe.tsv 36.7 kB
 - dul1.ark+=13960=t75i4h116.poe.tsv 42.8 kB
 - dul1.ark+=13960=t84j19z0d.poe.tsv 5.2 kB
 - ellisbell1848.poe.tsv 19.8 kB
 - emilydickinson.poe.tsv 51.1 kB

Available in

GitHub

Publication date:

December 31, 2015

DOI:

DOI 10.5281/zenodo.44226

Keyword(s):

predictive modeling literary prestige python

Related identifiers:

Cited by:

<https://dx.doi.org/10.6084/m9.figshare.1418394>

Supplement to:

<https://github.com/tedunderwood/paceofchange/tree/v1.0>

Communities:

Digital Historical Linguistics

License (for files):

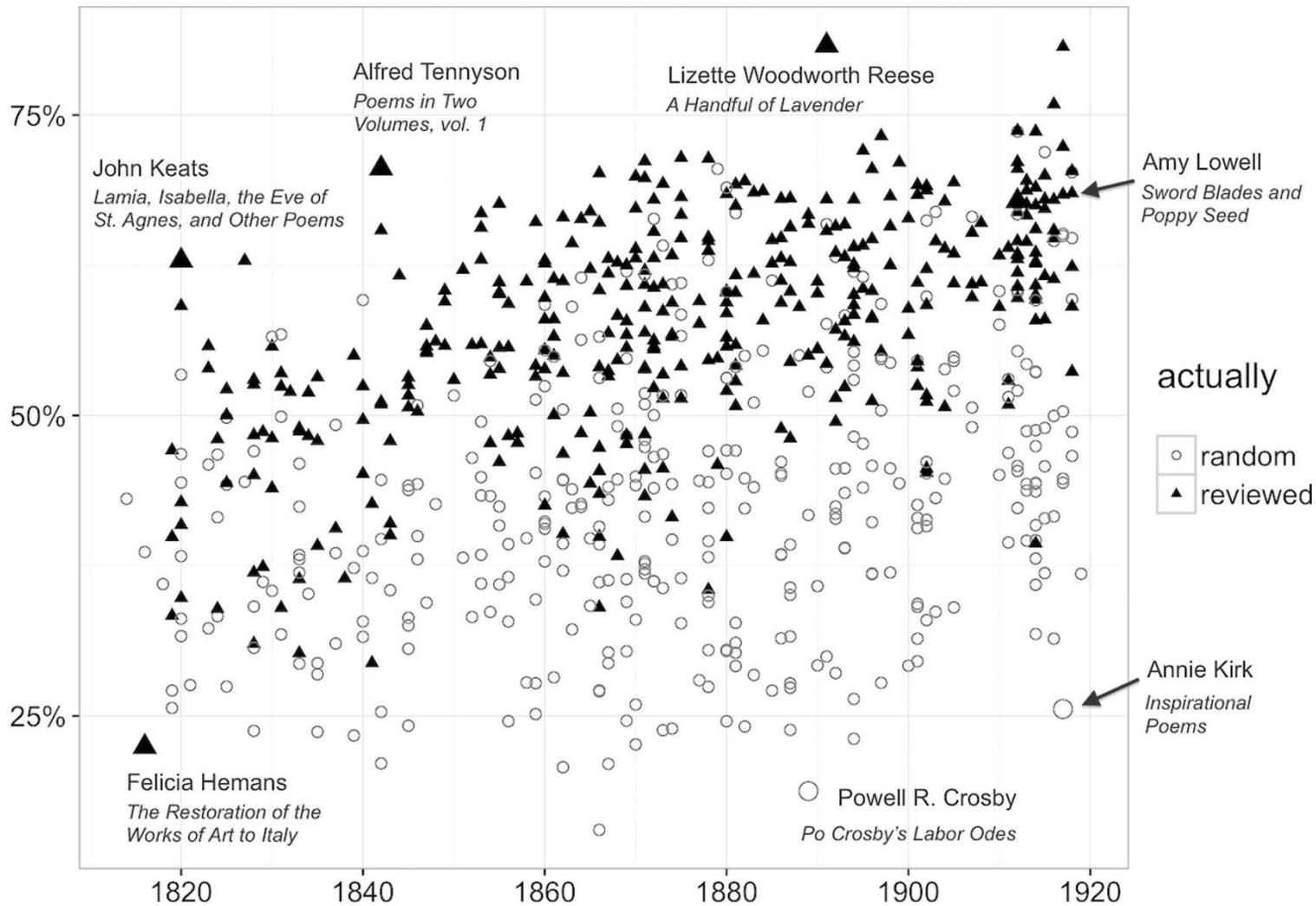
[MIT License](#)

<https://zenodo.org/record/44226#.Wvo3KNMvwch>

<https://github.com/tedunderwood/paceofchange/tree/v1.0>



Predicted prob. of coming from reviewed set





Predicted prob. of coming from reviewed set



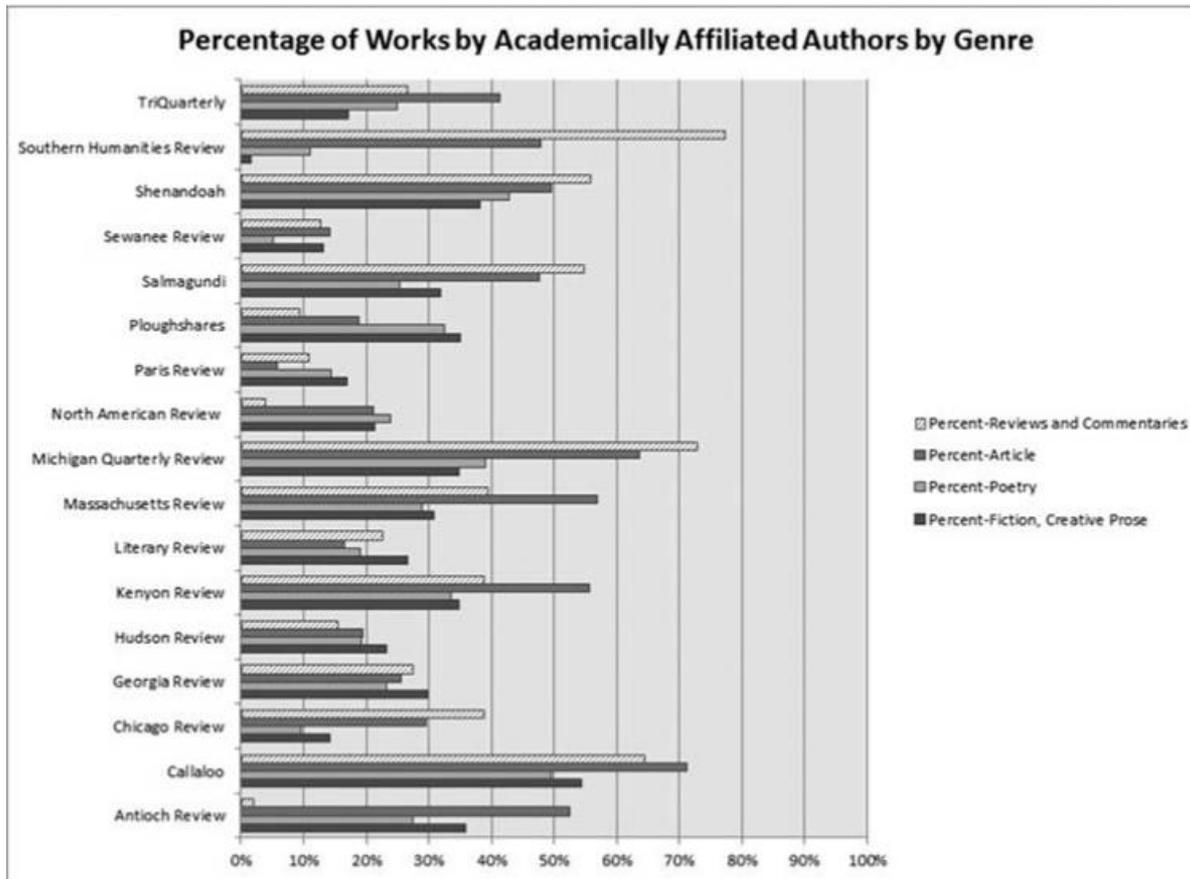


2. What is your vocabulary?



“Genre is, in essence, an integration of aboutness, of-ness, and is-ness for its multidimensions. A fiction, a piece of music, an image, or a film is likely being described as of-ness instead of aboutness, and form and genre are likely being taken as is-ness. Is-ness indicates the nature of genre—it is something rather than about something. However, it is form, one aspect of genre that is equivalent to is-ness; the other two aspects of genre, content and function, are mapped onto aboutness and of-ness, respectively.... It is no surprise that fiction, music, image, and film have the most manifestations of genres.”

Zhang, Lei, and Hope A Olson (2016). “Distilling Abstractions: Genre Redefining Essence versus Context.” *Library Trends* 63(3): 540-554.

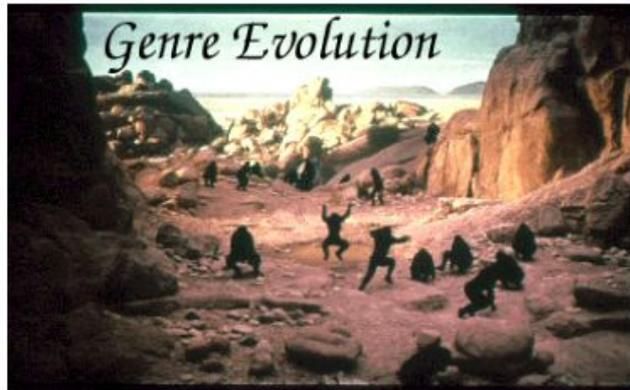


Green, Harriet E. (2014). "Literature as a Network: Creative-Writing Scholarship in Literary Magazines." *portal: Libraries and the Academy* 14(2).



THE GENRE EVOLUTION PROJECT

[Project Overview](#) - [Short Story Database](#) - [Top Reprinted Stories Database](#) - [Newcomers' Guide](#) - [Data Entry FAQ](#) - [Text Fields & Values](#) - [GEP Team](#) - [Assignments](#) - [Secure Materials Server](#) - [Selected Research Results](#) - [Invitation to Join](#)



Biologists study how organisms evolve and adapt to their environments. In the **Genre Evolution Project**, we approach literature in a similar way. We study literature as a living thing, able to adapt to society's desires and able to influence those desires. Currently, we are tracking the evolution of pulp science fiction short stories published between 1926 and 1999. Just as a biologist might ask the question, "How does a preference for mating with red-eyed males effect eye color distribution in seven generations of fruit flies?" the GEP might ask, "How does the increasing representation of women as authors of science fiction affect the treatment of medicine in the 1960s and beyond?"

More generally, the Genre Evolution Project seeks to determine what benefits may derive from treating culture and cultural production and consumption as a complex adaptive system. We view culture and its elements as one would the biosphere, that is, as a system in which organisms succeed or fail according to their fitness to their environment and, by their existence and success, modify their environment. The project presents many challenges.

- How does one define the key characteristics of a cultural creation?
- How does one define the key components of the cultural environment?
- How does one test hypotheses in cultural evolution?

The Genre Evolution Project began in January, 1998. As a test case, the GEP currently focuses on science fiction short stories in America of the 20th century. Membership in the GEP team is arranged through the principal investigators, [Eric Rabkin](#) and [Carl Simon](#). Individual team members participate either as purely voluntary researchers or through some more institutionalized mechanism such as independent study or the Undergraduate Research Opportunity Program. Those considering **joining the team** should [contact one of the faculty principal investigators or student project co-managers](#).



The galactic federation had rejected the Treaty of Agreement. The Outliers had withdrawn their negotiating squadron, despite the best efforts of the Trade Council. And in the Unoccupied Sector a call arose for punishing tariffs on intersystem trade.

Engineer Wilson didn't know what any of this meant, but he knew that it probably wasn't good. After two more commercial breaks, the news ticker began to repeat itself, so he turned off his TV and went back to sleep.

Simms, Paul (2015). "Eight Short Science Fiction Stories." *The New Yorker* 14 September 2015.



“Genre Form”

Domestic: a character-centered story treating ordinary circumstances in the narrative world, e.g., life at home, life in the work force.

Political: the form of stories having to do with contested power relations, such as bids for power or new arrangements for ruling a people.

Parody: a conscious emulation of another story or style with the intent of commenting on the parodied work.

<http://www.umich.edu/-genreevo/>



3. Who gets to decide the vocabulary?



“[G]enre itself ‘doesn’t say a whole lot’ (P17) and ‘genre alone can be somewhat misleading about how the game is actually designed to be played’ (P3) referring to the vastly different styles of games under the same genre. Users also recognize that genre is a significantly overloaded term and the multiple dimensions of genre need to be fleshed out....”

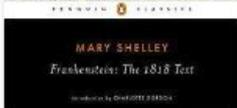


Lee, Jin Ha, Hyerim Cho, Violet Fox, and Andrew Perti (2013). “User-centered approach in creating a metadata schema for video games and interactive media.”



“...One participant (P17) said that there are two categories of genres: ‘structural’ and ‘thematic.’ Structural categories are the common categories used by video game websites, and thematic categories cover plot and emotional content. Another participant (P6) used different terms to convey a similar idea: ‘elemental genre’ for terms like ‘science fiction,’ ‘horror,’ ‘fantasy’ that describe the details of the game universe, and ‘gameplay genres’ such as RPG or FPS (first-person shooter).”

Lee, Jin Ha, Hyerim Cho, Violet Fox, and Andrew Perti (2013). “User-centered approach in creating a metadata schema for video games and interactive media.”



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Charlotte Gordon (Goodreads Author) (Introduction)

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ABOUT MARY WOLLSTONECRAFT SHELLEY





SocSciBot

Web crawler and link analyser for the social sciences and humanities

SocSciBot is a Web crawler for link analysis research on a web site or collection of web sites, or for text search/analysis on a collection of sites. [Free SocSciBot download](#).

SocSciBot (a) crawls one or more web sites and (b) analyses them to produce standard statistics about their interlinking and network diagrams of the interlinking. It also runs limited analyses of the text in the web sites. To analyse links to one or more web sites, use [Webometric Analyst](#) instead. SocSciBot can export network diagrams to Pajek and to UCINET. See the [quick network tutorial](#).

News

April 2016 general update.

February 2012 update allows quick partial crawling of multiple sites.

Instructions for [creating networks for large collections of web sites](#).

SocSciBot 4.1 has a button for [calculating link networks for the links between a set of web sites](#), plus improved



Webometric Analyst 2.0

For automatic Web searches in *Webometric Analyst*, please [sign up for a Bing Cognitive Services v7 key](#) first.

Webometric Analyst uses [URL citations](#) or [title mentions](#) instead of hyperlink searches for network diagrams, link impact reports, and web environment networks. See also the discussion of [link analysis in Webometric Analyst](#).

- › [Altmetric / alternative metric data sources](#): Facilities to get data from [Mendeley](#) (reference manager), [Altmetric.com](#) (altmetrics), [Google Books](#), and WorldCat. Also [syllabus mention searches](#), [patent citation searches](#), [presentation citation searches](#), [grey literature searches](#), web citation and URL citation searches from the general web. [See also the social web data sources below].

News

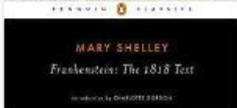
13/11/2017 – the old Bing keys will no longer work for Bing searches. Please download a new copy of the program and sign up for a Bing Search APIs v7 key.

22 May 2017 – [Google Custom Search](#) keys now fully supported.

5 December 2016 – new users must sign up for a Cognitive Services Key rather than an Azure key for Bing searches. Azure keys no longer work.

<http://socscibot.wlv.ac.uk/>

<http://lexiurl.wlv.ac.uk/>



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by Mary Wollstonecraft Shelley,

Charlotte Gordon (Goodreads Author) (Introduction)

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Mary Shelley began writing *Frankenstein* when she was only eighteen. At once a Gothic thriller, a passionate romance, and a cautionary tale about the dangers of science, *Frankenstein* tells the story of committed science student Victor Frankenstein. Obsessed with discovering the cause of generation and life and bestowing animation upon lifeless matter, Frankenstein assembles ...more

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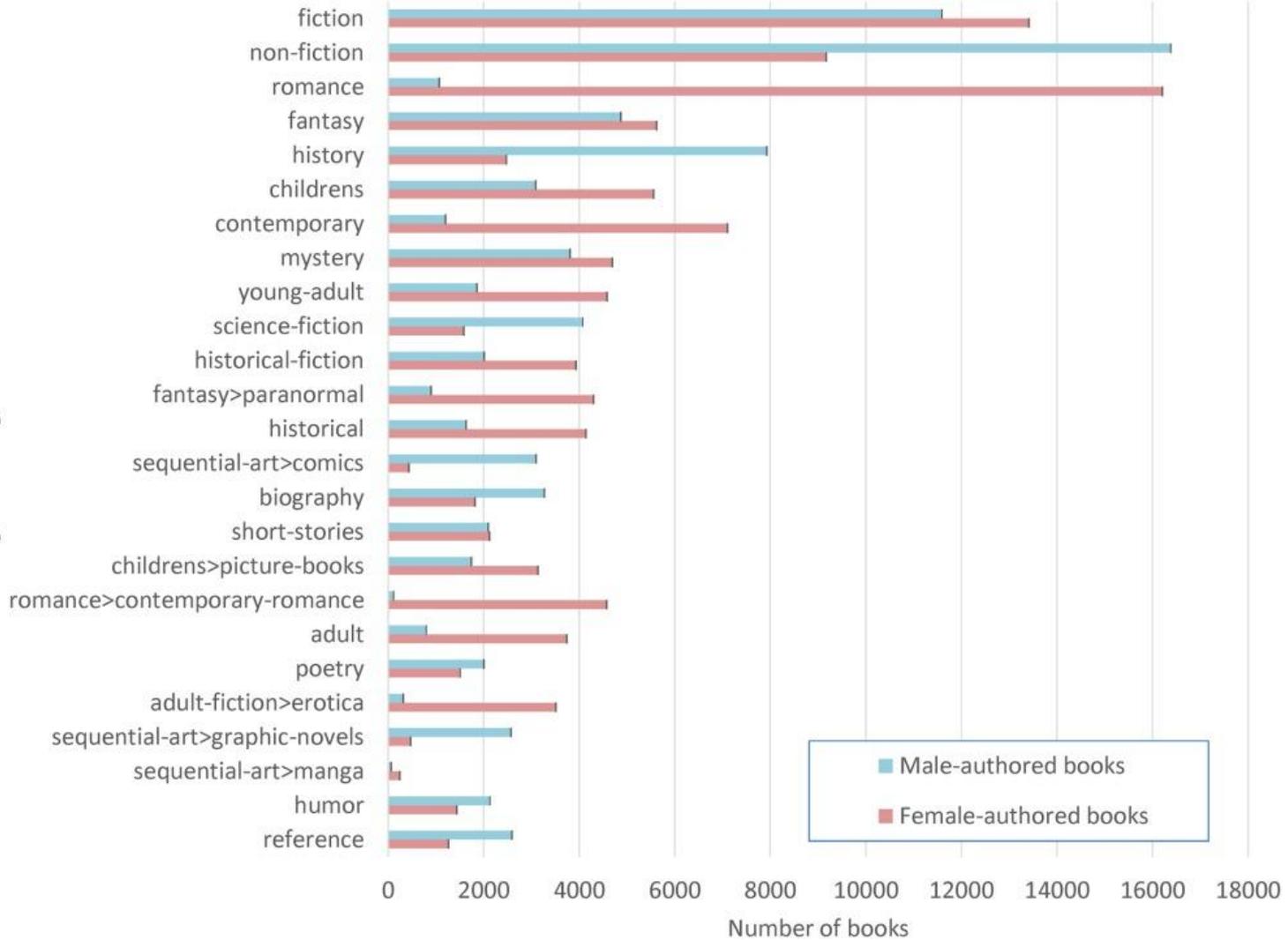


Thelwall, Mike (2016). “Book Genre and Author Gender.” *Journal of the Association for Information Science and Technology* 68(5): 1212-1223.

- In which genres are there substantial gender differences in authorship?
 - In which genres does the author gender influence the amount of interest shown in a book?
 - In which genres does the author gender influence the popularity a book?
-
- Extracted book metadata from a random sample of 500,000 pages on the social media site Goodreads.
 - Assigned books to all genres listed in the book’s metadata (Goodreads metadata lists up to ten genres, ranked by number of user tags).
 - Defined “interest” by number of user reviews in Goodreads metadata.
 - Defined “popularity” by average user rating in Goodreads metadata.

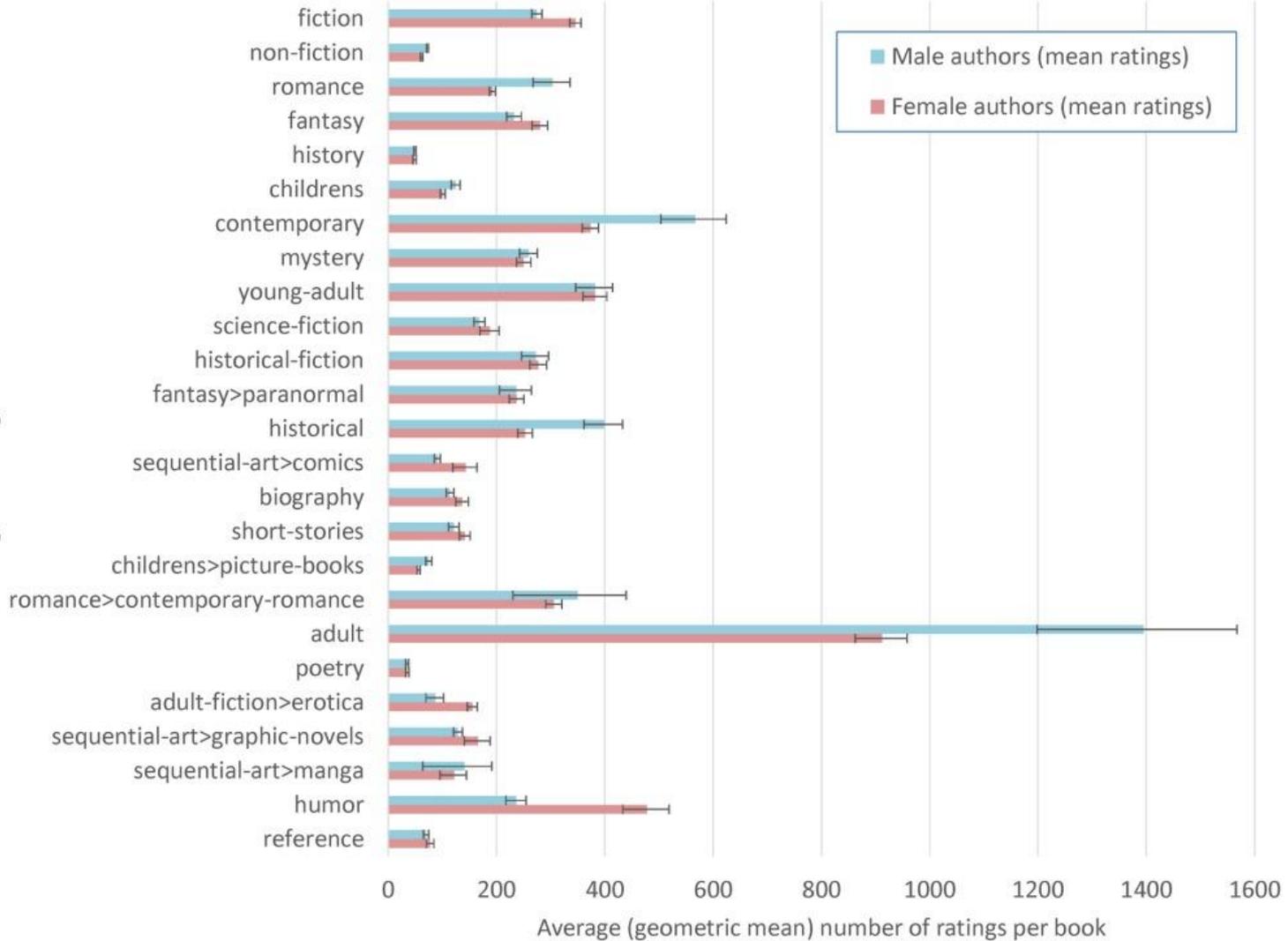


User-assigned book genre in Goodreads



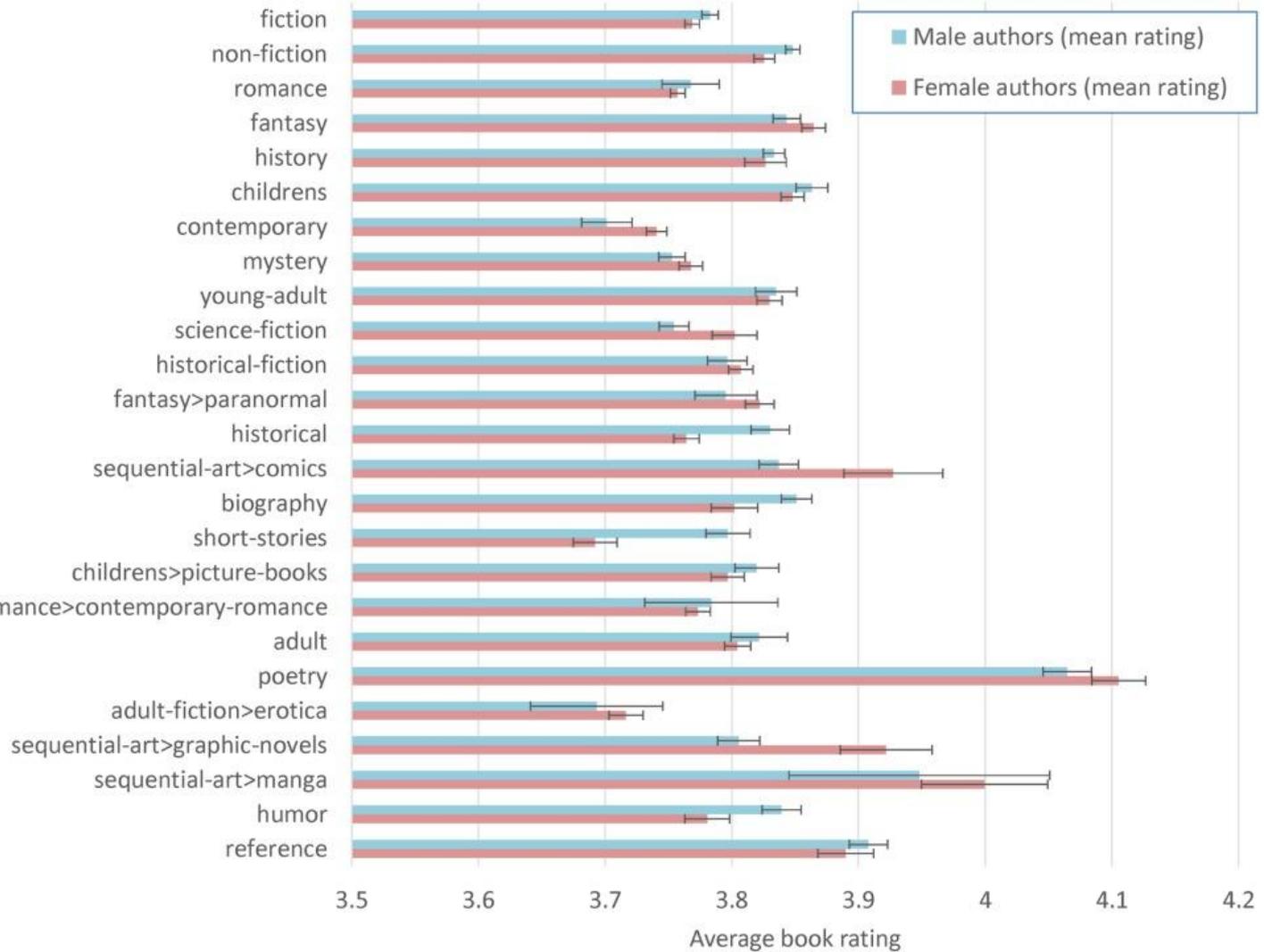


User-assigned book genre in Goodreads





User-assigned book genre in Goodreads





amazon.com

NETFLIX



4. What can machine learning do for you?



Long, Hoyt and Richard Jean So (2016). "Literary Pattern Recognition: Modernism between Close Reading and Machine Learning." *Critical Inquiry* (42)2: 235-267.

"April" by Ezra Pound

Three spirits came to me
And drew me apart
To where the olive boughs
Lay stripped upon the ground;
Pale carnage beneath bright mist.



Long, Hoyt and Richard Jean So (2016). "Literary Pattern Recognition: Modernism between Close Reading and Machine Learning." *Critical Inquiry* (42)2: 235-267.

What is the English-language Haiku?

The three ontologies of the genre:

- The English Haiku as modernist text
- The English Haiku as sociohistorical event
- The English Haiku as statistical pattern



Long, Hoyt and Richard Jean So (2016). “Literary Pattern Recognition: Modernism between Close Reading and Machine Learning.” *Critical Inquiry* (42)2: 235-267.

Poem as Raw Text

So cold I cannot sleep; and as
I cannot sleep, I'm colder still.

*Author Unknown; A 1902 translation
by Basil Hall Chamberlain*

Poem as a tokenized “bag-of-words”

['so', 'cold', 'i', 'can', 'not', 'sleep', 'and', 'as', 'i', 'can', 'not', 'sleep',
'i'm', 'colder', 'still']

Poem as “bag-of-words” without stopwords (i.e., function words)

['so', 'cold', 'sleep', 'colder', 'still']

Poem as labeled feature set (note that word-order is irrelevant)

{{'cold': True, 'colder': True, 'less_than_20_syl': True, 'sleep': True,
'still': True, 'so': True}, 'haiku'}



Long, Hoyt and Richard Jean So (2016). "Literary Pattern Recognition: Modernism between Close Reading and Machine Learning." *Critical Inquiry* (42)2: 235-267.

Word	Label	Probability
sky = True	not-ha : haiku =	5.7 : 1.0
shall = True	not-ha : haiku =	5.0 : 1.0
sea = True	not-ha : haiku =	5.0 : 1.0
man = True	not-ha : haiku =	4.3 : 1.0
last = True	not-ha : haiku =	3.7 : 1.0
snow = True	haiku : not-ha =	3.7 : 1.0
earth = True	not-ha : haiku =	3.7 : 1.0
blue = True	not-ha : haiku =	3.7 : 1.0
pass = True	not-ha : haiku =	3.7 : 1.0
voice = True	haiku : not-ha =	3.7 : 1.0
white = True	not-ha : haiku =	3.0 : 1.0
house = True	haiku : not-ha =	3.0 : 1.0
child = True	not-ha : haiku =	3.0 : 1.0
give = True	not-ha : haiku =	3.0 : 1.0
lo = True	haiku : not-ha =	3.0 : 1.0
sun = True	not-ha : haiku =	3.0 : 1.0
life = True	not-ha : haiku =	2.3 : 1.0
full = True	haiku : not-ha =	2.3 : 1.0
things = True	haiku : not-ha =	2.3 : 1.0
morning = True	haiku : not-ha =	2.3 : 1.0



Long, Hoyt and Richard Jean So (2016). "Literary Pattern Recognition: Modernism between Close Reading and Machine Learning." *Critical Inquiry* (42)2: 235-267.

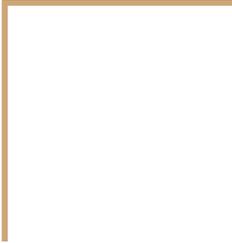
"A Sierra Juniper (1921)" by Anna Porter

Out of the granite rock I've wrested life;
Fending the storm I've strengthened root and limb,
Crouching, I hold the plunging chasm's rim,
As I have braved a thousand years of strife.



Four things to consider:

1. The scale of your analysis
2. The clarity and consistency of your dictionary
3. Whose expertise does and does not count
4. How humans and machines collaborate to produce insights



Thank you!

Dr. Brian S. Matzke
bmatzke@umich.edu





Questions?



Works Cited

- Booth, Alison (2017). "Mid-Range Reading: Not A Manifesto." *PMLA* 132(3): 620-627.
- Derrida, Jacques (1980). "The Law of Genre." *Critical Inquiry* 7(1): 55-81.
- English, James F. and Ted Underwood (2016). "Shifting Scales." *Modern Language Quarterly* 77(3): 277-295.
- Frow, John (2015). *Genre*. London: Routledge.
- Green, Harriet E. (2014). "Literature as a Network: Creative-Writing Scholarship in Literary Magazines." *portal: Libraries and the Academy* 14(2).
- Hayot, Eric (2013). "Scale, Data, and World Literature."
erichayot.org/wp-content/uploads/2013/11/scaledata.pdf (accessed 15 May 2018).
- Jin, Jay (2017). "Problems of Scale in 'Close' and 'Distant' Reading." *Philological Quarterly* 96(1): 105-129.
- Lee, Jin Ha, Hyerim Cho, Violet Fox, and Andrew Perti (2013). "User-Centered Approach in Creating a Metadata Schema for Video Games and Interactive Media." *Proceedings of the 13th ACM/IEEE-CS Joint Conference on Digital Libraries*: 229-238.



Works Cited

- Long, Hoyt and Richard Jean So (2016). "Literary Pattern Recognition: Modernism between Close Reading and Machine Learning." *Critical Inquiry* (42)2: 235-267.
- Long, Hoyt and Richard Jean So (2016). "Turbulent Flow: A Computational Model of World Literature." *Modern Language Quarterly* 77(3): 345-367.
- Madrigal, Alexis (2014). "How Netflix Reverse Engineered Hollywood." *The Atlantic* 2 January 2014. <https://www.theatlantic.com/technology/archive/2014/01/how-netflix-reverse-engineered-hollywood/282679/> (accessed 15 May 2018).
- Moretti, Franco (2007). *Graphs, Maps, Trees: Abstract Models for Literary History*. London: Verso.
- Rabkin, Eric S. (2001) "The Medical Lessons of Science Fiction," *Literature and Medicine* 20(1): 13-25.
- Rabkin, Eric S. (2004). "Science Fiction and the Future of Criticism." *PMLA* 119(3): 457-473.
- Sack, Graham Alexander (2013). "Character Networks for Narrative Generation: Structural Balance Theory and the Emergence of Proto-Narratives." *Open-Access Series in Informatics* 32: 183-197.



Works Cited

- Simms, Paul (2015). "Eight Short Science Fiction Stories." *The New Yorker* 14 September 2015. <https://www.newyorker.com/magazine/2015/09/14/eight-short-science-fiction-stories> (accessed 15 May 2018).
- Thelwall, Mike (2016). "Book genre and author gender: Romance>Paranormal-Romance to Autobiography>Memoir." *Journal of the Association for Information Science and Technology* 68(5): 1212-1223.
- Underwood, Ted and Jordan Sellers (2016). "The Longue Durée of Literary Prestige." *Modern Language Quarterly*, 77(3): 321-344.
- Zhang, Lei, and Hope A Olson (2016). "Distilling Abstractions: Genre Redefining Essence versus Context." *Library Trends* 63(3): 540-554.