# Influencing Mary MacLane: A Digital Literary Analysis

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#### **Introduction and Research Questions**

Mary MacLane (1881–1929) was a highly influential figure in early 20th-century autobiographical literature. The unflinching introspective style of her debut works sent waves throughout the American literary scene and evoked extreme resonance and controversy among readers. Born in Winnipeg, Canada, and raised in Butte, Montana, MacLane uniquely uses the isolation and stultifying environment of her American West upbringing as both backdrop and catalyst for her literary explorations of the Self. MacLane authored three major works during her career: The Story of Mary MacLane (1902), My Friend Annabel Lee (1903), and I, Mary MacLane: A Diary of Human Days (1917). Together, these works paint an intimate portrait of her inner world, aided by an unconventional approach to gender, sexuality, religion, and place. Recent scholarly conversations on MacLane have discussed her relationship to prominent literary themes at the turn of the 20th century, such as realism or the local color movement. However, a digital humanities approach to dissecting the relationship between her works and the work of 19th-century authors that came before her has yet to be embarked upon. Situating MacLane in her appropriate literary canon is necessary for further analysis of queer, environmental, and gender studies in early 20th-century American literature, and necessitates determining the whereabouts and extent of her inspirations. This research examines MacLane's writings through the lens of her influences-John Keats, Marie Bashkirtseff, Charlotte Brontë, Olive Schreiner, and George Eliot-analyzing their impact on her voice and style through an in-depth comparative analysis. Utilizing digital humanities tools like Topic Modeling, Named Entity Recognition (NER), and Ngrams within the Gale Digital Scholar Lab, this project determines MacLane's literary influences and identifies thematic and stylistic parallels that link the authors together. Additionally, by incorporating analyses of a newspaper archive native to Montana, the Great Falls Tribune, my research situates MacLane within her geographic and cultural context, providing insights into how she and her Montana upbringing informed the other. My main research questions are as follows:

- 1. What thematic and stylistic elements characterize Mary MacLane's works, and how do they reflect her personal and intellectual preoccupations?
- 2. To what extent do her literary contemporaries influence these characteristics?



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Gale Research Showcase gale.com/showcase 3. In what ways did MacLane's Montana environment, as reflected in local newspaper analyses, shape her identity as a writer and cultural figure?

This project aims to bridge MacLane's literary influences and her broader societal impact by addressing these questions. Literary analysis often occurs at the close-reading level. Using the digital humanities tools from the Gale Digital Scholar Lab, I aim to provide visualizations of such information on a grander scale.

# **Analyzing Mary MacLane's Primary Works**

Mary MacLane authored three major works during her lifetime: *The Story of Mary MacLane: By Herself* (later re-titled *I Await the Devil's Coming*), *My Friend Annabel Lee*, and *I*, *Mary MacLane: A Diary of Human Days*. I used the Advanced Search feature in the Gale Digital Scholar Lab to compile a focused content set. By searching for "MacLane, Mary" under "Author" and filtering for monographs, I isolated these three texts. Notably, I discovered a duplicate copy of *The Story of Mary MacLane* within the *History of Women Archive*. This version included an additional four pages—a handwritten note from MacLane to the presumed first owner of the book. Despite its historical value, this copy had a 2% lower OCR quality compared to the version initially included in the content set. To prioritize textual clarity for analysis, I opted to exclude the lower-quality version.

Mary MacLane's Primary Works: Advanced Search

# Search Terms: Author: "MacLane, Mary" Revise Search Applied Filters: Content Type : "Monograph"

To analyze these texts, I employed several tools within the Gale Digital Scholar Lab. Parts of Speech Analysis highlighted linguistic patterns in MacLane's writing, revealing her frequent use of evocative and abstract language. Topic Modeling identified recurring themes across the texts, such as spirituality, introspection, and struggles with identity. Named Entity Recognition (NER) highlighted the people, places, and concepts MacLane referenced most frequently, providing insight into her intellectual and cultural influences. Additionally, chart visualization metrics such as average word length were calculated to infer stylistic complexity and thematic focus.

# Topic Modeling

#### **Cleaning Configuration**

The following characters were excluded from this analysis:  $1234567890 = + \frac{\#@\%}{\$} \cdot \frac{\$}{\$} = \frac{1}{2} \cdot \frac{1}{3} \cdot \frac{1}{3}$ 

The words listed below were excluded from my analysis. I included all of the words listed on the Digital Scholar Lab's default English cleaning configuration. Beyond these default additions, I also included words that would not lend themselves to a thematic analysis; more specifically, I excluded words that would fit in any thematic element because of the generality of their nature. Words like "long," "far," "day," "like," and "look," for example, were excluded from the analysis to make room for specific adjectives and nouns that would later arise in the results. I also excluded typos from OCR errors, like "stone—it," to create a cleaner visualization.

a, about, above, across, after, afterwards, again, against, all, almost, alone, along, already, also, although, always, am, among, amongst, amoungst, amount, an, and, another, any, anyhow, anyone, anything, anyway, anywhere, are, around, as, at, back, be, became, because, become, becomes, becoming, been, before, beforehand, behind, being, below, beside, besides, between, beyond, bill, both, bottom, but, by, call, can, cannot, cant, co, computer, con, could, couldnt, cry, de, describe, detail, do, done, down, due, during, each, eg, eight, either, eleven, else, elsewhere, empty, enough, etc, even, ever, every, everyone, everything, everywhere, except, few, fifteen, fify, fill, find, fire, first, five, for, former, formerly, forty, found, four, from, front, full, further, get, give, go, had, has, hasnt, have, he, hence, her, here, hereafter, hereby, herein, hereupon, hers, herself, him, himself, his, how, however, hundred, i, ie, if, in, inc, indeed, interest, into, is, it, its, itself, keep, last, latter, latterly, least, less, ltd, made, many, may, me, meanwhile, might, mill, mine, more, moreover, most, mostly, move, much, must, my, myself, name, namely, neither, never, nevertheless, next, nine, no, nobody, none, noone, nor, not, nothing, now, nowhere, of, off, often, on, once, one, only, onto, or, other, others, otherwise, our, ours, ourselves, out, over, own, part, per, perhaps, please, put, rather, re, same, see, seem, seemed, seeming, seems, serious, several, she, should, show, side, since, sincere, six, sixty, so, some, somehow, someone, something, sometime, sometimes, somewhere, still, such, system, take, ten, than, that, the, their, them, themselves, then, thence, there, thereafter, thereby, therefore, therein, thereupon, these, they, thick, thin, third, this, those, though, three, through, throughout, thru, thus, to, together, too, top, toward, towards, twelve, twenty, two, un, under, until, up, upon, us, very, via, was, we, well, were, what, whatever, when, whence, whenever, where, whereafter, whereas, whereby, wherein, whereupon, wherever, whether, which, while, whither, who, whoever, whole, whom, whose, why, will, with, within, without, would, yet, you, your, yours, yourself, yourselves, like, don't, said, make, send, placed, longer, little, isn't, stays, like, things, know, world, long, thing, day, come, look, I'd, partly, stone---it, wouldn't, ter, don't, it, me, far, it, them, did, sit, shall, let, comes, times, just, one.

The following pairs follow this formula: "former word": "replacement word."

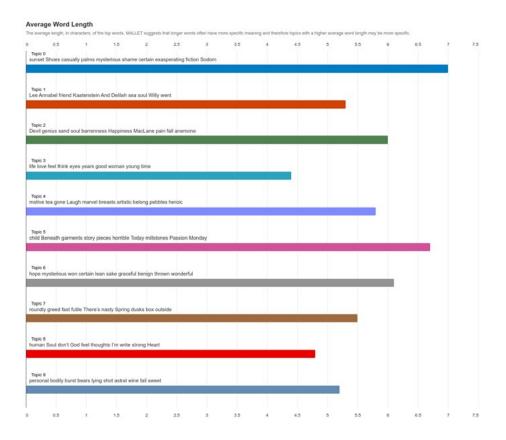
"Mac": "MacLane."

"Lane": "MacLane."

"Mac Lane": "MacLane."

# **Results**

Mary MacLane's Primary Works: Topic Modeling Results



# <u>Analysis</u>

The above chart reflects the specificity and stylistic complexity of the top words within each topic. Longer average word lengths suggest more precise or nuanced themes. The topic modeling tool allowed visualization of MacLane's predilection for descriptive and emotionally charged language. This proved useful in qualifying MacLane's writing style, benefiting later analyses of her inspirations. Categorizing the top words within each topic, illuminated the specificity and stylistic complexity of her language. Longer average word lengths, for example, were linked to more nuanced or abstract themes, reflecting MacLane's predilection for descriptive and emotionally charged language. This analytical framework provided key insights that informed later explorations of her inspirations and thematic consistencies.

A closer examination of word lengths across topics highlights these patterns. For example, Topic 0 includes words such as "sunset," "palms," and "Sodom," implying an authorial tie between commentary on morality and elements of nature. Topic 2 features words such as "genius," "barrenness," and "happiness," implying a concern with philosophical inquiry. It is important to note that "barrenness" is used throughout The Story of Mary MacLane about the geographical landscape of her town, Butte, Montana. As such, her correlation between her physical location and her internal dialogue continues to be shown. The relatively high word length reflects the complexity of these themes, consistent with MacLane's personal and introspective voice. Topic 8-dominated by terms like "Soul," "God," and "Heart"-highlights MacLane's focus on spiritual and existential inquiries. The shorter word lengths in this category (around 4-5 characters) suggest a direct, universal resonance. Topic 9, featuring words such as "bodily," "astral," and "sweet," continues to denote transcendent themes of religion or corporeality. The moderate average word length in this topic reflects a balance between descriptive richness and philosophical abstraction. Overall, the topic modeling tool provided a structured means to uncover the nuanced interplay between MacLane's language and thematic focus. By visualizing her use of words across topics, it became possible to trace her stylistic choices back to her broader philosophical and literary preoccupations.

# Named Entity Recognition (NER)

The Named Entity Recognition (NER) tool provided a valuable method to analyze the individuals and entities referenced in Mary MacLane's writings, offering insight into her inspirations, narrative style, and critical targets. For this analysis, I conducted an initial run using the default cleaning configuration to obtain an unfiltered quantification of the proper nouns found in her texts. This approach aimed to determine which individuals MacLane mentions most frequently, with a research goal of exploring how these figures influenced her literary style. To refine the data, I selected only the "Persons" category in the NER tool and exported the results as a .CSV file. I then focused on entities mentioned five or more times, resulting in the following key insights.

Entity	Category	Documents	Count
Annabel Lee	Person	1	188
Mary MacLane	Person	3	48
Butte	Person	3	33
John Keats	Person	1	27
Devil	Person	1	23
Lee	Person	1	22
Bella	Person	1	20
Emma	Person	1	19
Gray Dawn	Person	1	16
Willy Kaatenstein	Person	1	15
Jenny Kaatenstein	Person	1	13
Harry Kaatenstein	Person	1	13
Finn	Person	1	13
Uncle	Person	1	9
Spider	Person	1	9
Lilith	Person	1	9

William Jennings Bryan	Person	1	7
Rhythm	Person	1	7
Murder	Person	1	6
Mrs Kaatenstein	Person	1	6
Mary Magdalene	Person	1	6
Marie Bashkirtseff	Person	1	6
Damn	Person	1	6
Broken	Person	1	6
mar¬	Person	3	5
Willy	Person	1	5
Mind	Person	1	5
Lily Walker	Person	1	5
Leah Kaatenstein	Person	1	5
Katy Kelly	Person	1	5
Good Scout	Person	1	5
Annabel	Person	1	5

I manually reviewed the NER results to categorize the entities and discern their relationships to MacLane's writing. Many entries, such as "said" and "damn," were misidentified due to OCR errors. However, most entries revealed distinct categories of references: personified objects or places, narrative characters, and public figures or inspirations.

#### Personified Objects or Places

MacLane's writing style often personifies natural or conceptual elements, leading to the Named Entity Recognition tool to classify certain nouns as persons. Examples include "gray dawn," "spider," and "sun." These entities serve as symbolic backdrops or active participants in MacLane's introspective narrative, emphasizing her unique stylistic approach.

#### Narrative Characters

This category includes variations of figures that function within the stories or essays themselves, such as Annabel Lee, Devil, Lee, Mary MacLane, Emma, Willy Kaatenstein, Mac Lane, Bella, Kaatenstein, Frank, Kind Devil, Jenny Kaatenstein, Finn, Lilith, Anna, Harry Kaatenstein, Uncle, Carmen, Katy Kelly, God. Many of these figures are first or last names of fictional or allegorical characters that appear in MacLane's narrative and therefore are not included in my analysis of public figures that influenced MacLane's writing.

#### Public Figures and Literary Inspirations

The final category of references in Mary MacLane's writings provides direct insight into her intellectual landscape and critical viewpoints, showcasing both her literary inspirations and her disdain for certain public figures. The writers that appear in the "person" category of the Named Entity Recognition tool were John Keats (appearing 27 times) and Marie Bashkirtseff (appearing 6 times). Albert Ross is mentioned 2 times, but I include him in my analysis because there were two other instances in which variations of his name were mistaken for separate entities ("Albert Rossand" and "Albert Ross pro¬"). Although this is outside the threshold I established earlier of five mentions, Ross is an appropriate example that helps contextualize MacLane's discussion of the other figures. The public figure that appears in the results is William Jennings Bryan (appearing 7 times), a politician from MacLane's time. By searching these terms in the texts they appear in, I determined MacLane's written opinions on these figures.

Among the writers she admired, John Keats stands out as a profound influence. MacLane reveres Keats as a standard of divine creation and literary excellence in *I, Mary MacLane: A Diary of Human Days*. She writes, "In making the glimmering Purple of all your words, God, you have not surpassed the thing you made in the regal wistful glory of John Keats." Her admiration extends beyond aesthetic appreciation, as she describes her love for Keats as an "endless treasure of beauty and power and charm and light." Keats is cemented as a symbol of spiritual and artistic resurrection for MacLane, who writes, "Without John Keats human nature

feels to be something broken, menacing, unspeakably despicable and lost... With John Keats the lights break across it and reflect the blazing yellow sun again from eyes and foreheads and fingers and shining hair."

Marie Bashkirtseff is another significant figure MacLane holds in high regard. She compares herself to Bashkirtseff in *The Story of Mary MacLane*, noting "certain fine points of similarity" between their minds and citing her alongside Lord Byron as an intellectual equal. She particularly admires Bashkirtseff's consistent ambition, remarking on the "terrific storms of woe and despair" Bashkirtseff must have faced upon realizing her life and work would be cut short. For MacLane, Bashkirtseff embodies a passionate and tragic genius, a theme that resonates deeply with her own creative and existential struggles.

MacLane also expresses disdain for public figures, such as the politician William Jennings Bryan and the writer Albert Ross. In *I, Mary MacLane*, she mocks Bryan, writing, "I laugh at William Jennings Bryan" and describing his career as "something hectic as hell's-bells." MacLane further derides him as "a terrible American" whose presence evokes a "doleful purple river crushing one's helpless spirit among its rocks and rapids." Her scorn reflects her broader critique of moral posturing and mediocrity in public life.

Albert Ross appears in a more ambivalent light. In *My Friend Annabel Lee*, she mentions Ross as a complementary subject in describing another character's literary tastes. In *The Story of Mary MacLane*, her tone is one of irreverence. She writes, "From black under-clothing—and any color but white; from hips that wobble as one walks; from persons with fishy eyes; from the books of Archibald C. Gunter and Albert Ross: Kind Devil, deliver me." This condescending dismissal places Ross among the literary figures she associates with mediocrity.

When searching *The Story of Mary MacLane* for Bashkirtseff's mentions, I found that the first time Bashkirtseff is mentioned is alongside the names of other authors MacLane holds in high regard: "Charlotte Brontë did this in some degree, and she was a genius; and also Marie Bashkirtseff, and Olive Schreiner, and George Eliot. They are all geniuses." The next step in my analysis is creating a content set that includes the works of these listed authors that are either mentioned frequently (John Keats and Marie Bashkirtseff) and in association with said authors, such as Charlotte Brontë, Olive Schreiner, and George Eliot. These authors, frequently mentioned with admiration in *The Story of Mary MacLane*, will provide a comparative framework for exploring her literary and intellectual influences.

# **Author Influences Content Set Analysis**

#### Strategy

## Content Set

To investigate the literary influences on Mary MacLane, I created a content set featuring works by Charlotte Brontë, Olive Schreiner, George Eliot, John Keats, and Marie Bashkirtseff. These authors were chosen due to their frequent mention in MacLane's writings and their thematic parallels to her introspective and feminist style. To refine the set, I manually curated the texts, removing items not published solely by the authors or their publishers. For example, works like *The Essence of Christianity* and duplicates with lower OCR confidence scores, such as *Felix Holt, the Radical*, were excluded. Non-English translations, such as *Het Dagboek* van by Bashkirtseff, and newspaper critiques of the authors were also removed. After these adjustments, the content set was narrowed to 25 works.

The goal of this content set is to determine what literary themes, elements, or subjects the aforementioned authors used. This is to determine how influential these writers were in the works of Mary MacLane. I will compare the topic modeling visuals computed earlier on MacLane's work with these topic models. To clean the content set, I first ran a default cleaning configuration on it to determine which words to add to the stop list in the cleaning stage. I repeated this process until the output was representative of the literary elements of the author's works. After pursuing this project, I realized that my content set was too small. The Ngram and topic modeling analyses would result in blank tables, likely the result of an incompatibility with the long list of stop words that I had deemed unnecessary for my research goals. I decided to therefore manually upload longer texts via Project Gutenberg that did not come up in my advanced search entries in the Gale Digital Scholar Lab. I manually uploaded the most popular works by each author, including:

- Jane Eyre by Charlotte Brontë
- Gutenberg eBook of Keats: Poems Published in 1820
- Story of an African Farm by Olive Schreiner
- George Eliot's Middlemarch, Silas Marner, and The Mill on the Floss
- Marie Bashkirtseff's Journal

#### **Cleaning Configuration**

I ran an Ngram analysis with my Default & Text Correction Configuration. I exported it as a CSV and began curating my stop word list. I went through the first 30 words that were most popular and entered all the OCR mistakes and common words into the stop list. Still, the outcomes of the analyses were unproductive and constituted largely of OCR mistakes. To determine if it was the uploaded documents creating the majority of these mistakes, I added only the uploaded documents from Project Gutenberg to an isolated content set to run an initial Topic Modeling analysis using my Default & Text Correction Configuration. The difference between the two was clear and proved that it was the sub-80% OCR confidence documents selected from the Lab that had been populating the analyses with OCR mistakes. I created a new content set with only the 7 uploaded documents from Project Gutenberg.

All text correction options were selected to be removed from the analysis.

The following words were excluded from this analysis:

a, about, above, across, after, afterwards, again, against, all, almost, alone, along, already, also, although, always, am, among, amongst, amoungst, amount, an, and, another, any, anyhow, anyone, anything, anyway, anywhere, are, around, as, at, back, be, became, because, become, becomes, becoming, been, before, beforehand, behind, being, below, beside, besides, between, beyond, bill, both, bottom, but, by, call, can, cannot, cant, co, computer, con, could, couldnt, cry, de, describe, detail, do, done, down, due, during, each, eg, eight, either, eleven, else, elsewhere, empty, enough, etc, even, ever, every, everyone, everything, everywhere, except, few, fifteen, fify, fill, find, fire, first, five, for, former, formerly, forty, found, four, from, front, full, further, get, give, go, had, has, hasnt, have, he, hence, her, here, hereafter, hereby, herein, hereupon, hers, herself, him, himself, his, how, however, hundred, i, ie, if, in, inc, indeed, interest, into, is, it, its, itself, keep, last, latter, latterly, least, less, ltd, made, many, may, me, meanwhile, might, mill, mine, more, moreover, most, mostly, move, much, must, my, myself, name, namely, neither, never, nevertheless, next, nine, no, nobody, none, noone, nor, not, nothing, now, nowhere, of, off, often, on, once, one, only, onto, or, other, others, otherwise, our, ours, ourselves, out, over, own, part, per, perhaps, please, put, rather, re, same, see, seem, seemed, seeming, seems, serious, several, she, should, show, side, since, sincere, six, sixty, so, some, somehow, someone, something, sometime, sometimes, somewhere, still, such, system, take, ten, than, that, the, their, them, themselves, then, thence, there, thereafter, thereby, therefore, therein, thereupon, these, they, thick, thin, third, this, those, though, three, through, throughout, thru, thus, to, together, too, top, toward, towards, twelve, twenty, two, un, under, until, up, upon, us, very, via, was, we, well, were, what, whatever, when, whence, whenever, where, whereafter, whereas, whereby, wherein, whereupon, wherever, whether, which, while, whither, who, whoever, whole, whom, whose, why, will, with, within, without, would, yet, you, your, yours, yourself, yourselves, Order, Character, Thousand, Probably, Went, Shall, eBook, people, h.htm, Floss, eBook, Eliot, George, h.htm, Mrs, Philip, said, Project, Gutenberg, Great, images.html, Eppie, there?s, said, little, Him, old, boy, Keats, Gutenberg, Page, Project, John, eBook, Poems, Published, images.html, thou, Jane, Eyre, Brontë, Charlotte, h.htm, eBook, Miss, sir, Gutenberg, like, little, you, said, her, come, man, time, did, thought, Middlemarch, images.html, Mrs, Brooke, ad, f, yu, fr, frm, wuld, w, whe, bee, e, r, wh, yur, mre, culd, ut, prject, guteberg, prject guteberg, ay, kw, tha, sme, pm, abut, shuld, gd, pm prject, pm prject guteberg, ma, cme, thig, befre, thik, ca, ther, agai, thught, dw, hw, ld, tm, withut, ver, ebk, dt, guteberg ebk, guteberg ebk f, prject guteberg ebk, tw, lked, lg, lk, beig, thigs, lve, t t, drthea, ur, gt, jae, smethig, yug, uder, wrk, lkig, ew, thrugh, thse, ce, ff,

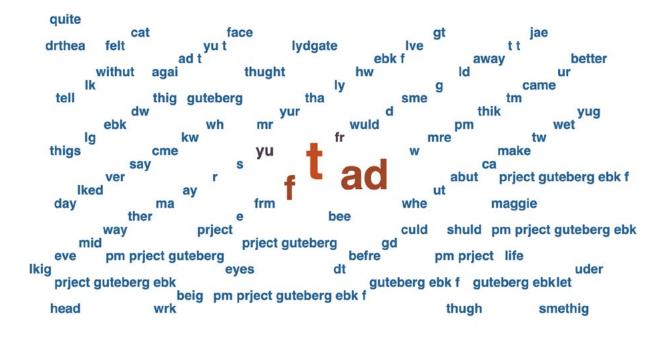
aythig, rm, mey, pr, eugh, mst, ut f, brke, wrld, tk, sese, havig, wrds, ear, ight, ge, gerge, e f, flss, ebk f flss, prject guteberg ebk f flss, yure, nt, aswer, becme, fd, pii, vicy, huma, turig, abve, hes, wrg, pay, schl, iterest, bks, shrt, oe, frieds, frm, cduct, cre, prud, wrse, acrss, clck, experiece, happie, cmpay, mee, byd, srry, particlar, dres, gre, grd, dt kw, t, s, mr, d, ly, g, t t, maggie, mid, lydgate, wet, eve, dr, agaist, tulliver, wat, peple, huse, te, rud, casaub, ather, hme, wma, fud, everythig, feelig, t g, hads, fred, t make, sice, rsamd, bulstrde, kew, mrig, t say, srt, fid, std, em, twards, gig t, d t, bth, brt, charltte, charltte brt, silas, hpe, eveig, theres, ive, husbad, mea, mr casaub, almst, whm, fte, g t, ale, preset, glegg, fie, jh, hur, cmig, amg, busiess, spke, rchester, brught, marer, des, strg, wrd, tgether, hardly, wated, certai, ucle, ext, o, makig, mr rchester, ame, ature, shw, wat t, wet t, strage, rse, behid, suppse, aut, withi, brther, baparte, childre, lw, questi, stephe, thikig, while, stry, nw, pwer, als, cld, didt, hwever, smetimes, eed, pit, tward, s t, ught, used t, alg, fellw, ladislaw, ah, bk, widw, lger, bdy, silece, usual, ught t, sayig, brig, certaily, grud, speakig, thats, TRUE, pers, hrse, silet, wme, brw, bld, farebrther, gdfrey, seeig, truble, lst, mie, tat, chse, thughts, wt, kwledge, wi, beyd, bb, wakem, wald, meas, pullet, wish t, suddely, hld, hurs, geeral, gregry, maer, saie, slwly, fair, begiig, dubt, frward, tat saie, fried, ladies, lved, rder, presece, ste, sudde, uderstad, yull, puds, yuve, ctiued, germa, silas marer, livig, maggies, happeed, presetly, ag, tms, immediately, psiti, istead, cutry, differet, sig, t ly, right t, mere, stregth, cmes, csciusess, mmets, step, lwick, mr bulstrde, risig, appeared, drew, fur, hudred, stadig, id, wrks, fall, frth, ft, raffles, tmrrw, kws, lydgates, talkig, fllwed, olive schreier, schreier, africa farm, farm olive, stry africa, ud, etirely, everybdy, thak, deae, plai, bserved, frt, puttig, t marry, gds, happiess, jy, mths, paiful, prbably, drtheas, bject, chace, cscius, glace, mved, pride, sft, iward, kwig, rad, quickly, t feel, tryig, bliged, meat t, crer, sake, sed, circumstaces, glass, hadsme, lks, thy, tuch, adle, gree, atural, culdt, shk, stellig, st jh, figers, getleme, pems, t ed, t quite, thrughly, thusad, t bed, uderstd, cpyright, mr deae, wear, prfessi, rsamds, thugh, gig, n, tured, mmet, mther, tld, elit, im, whse, l, ed, bega, pe, ideed, reas, gettig, pssible, yurself, peed, cut, retur, dig, wder, caleb, retured, thrw, stad, util, ra, pleasat, sud, cversati, ru, sittig, dier, miutes, ist, effrt, tice, wuldt, lydall, relati, dg, imagiati, su, casaubs, determied, ecessary, accut, des t, lse, prmise, featherste, frget, givig, reed, eh, lrd, pprtuity, cusi, frce, walkig, begu, cmm, tellig, csidered, eck, atteti, cfidece, eter, readig, belw, ccasi, peig, acti, arrw, dest, fixed, flr, prperty, dctr, ifluece, rme, cmfrt, questis, cadle, fudati, leavig, pla, listeed, srrw, tgue, wats, ffer, hldig, tuched, imagie, melachly, ppsite, remaied, stes, yuth, appearace, bulstrdes, bys, csider, facy, fidig, tis, ukw, apprached, cditi, cpy, perss, sftly, shadw, becmig, cvered, ii, lvig, widws, wmas, ravele, dager, explaati, frgt, lely, rdiary, smewhat, suppsed, watig, immediate, cryig, cviced, mth, relatis, ted, er, number, accustomed, double, hidden, lover, lower, patient, plans, shoulders, vicys, wondered, bringing, dully, freds, ised, working, younger, occurred, compai, folded, jurey, language, mentioned, shoulder, distant, remain, servants, showing, slm, disposition, following, gradually, changed, clearly, conscience, keeping, intention, aside, allow, excellent, whats, wr, make, way, say, felt, life, family, cried, small, bed, white, sweet, ages, girl, believe, january, result, mass, independent, passage, estate, justified, bard, resolute, education, hall, asked, came, day, say, away, face, life, let, head, lucy, bit, bessy, bat, garth, james, celia,

marriage, curse, medical, nacy, squire, child, master, macey, father, dusta, ill, folks, aar, thu, thee, heart, eyes, saw, till, far, heard, cat, light, left, voice, mary, cadwallader, chettam, hospital, curt, vicar, subject, wills, fairfax, bessie, hele, marie, mamma, nice, received, write, father, chapter, use, fact, help, lad, dear, mother, days, father, sister, tullivers, oggs, fathers, mss, mother, shes, ill, philips, quite, better, just, yes, sure, tell, speak, between, wish, best, sat, walked, lay, feet, right, really, kid, likely, meat, deal, set, turn, change, others, years, place, feel, hear, half, leave, set, right, temporary, consistent, built, sleep, wall, wag, makes, city, letter, called, guest, latin, safford, wrote, society, sunday, hyperion, satur, yud, dds, iver, breaks, tipt, meti, pleyndale, waule, especially, hyperion, satur, aunts, yud, wid, silass, answered, thrfield, gave, kpge, dss, berwma, taking, case, chair, november, gleggs, allays, buy, lucys, wakems, bbs, shat, https://www.gutenberg.org/cache/epub/pg/images.html, keatss, introduction, hawley, trumbull, featherstes, bambridge, close, sit.

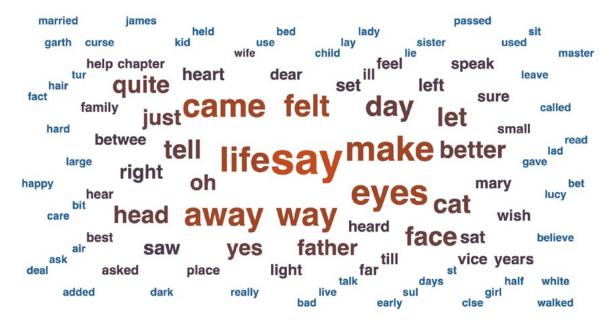
The following pairs follow this formula: "former word": "replacement word."

women:woman men:man writing:write getle:gentle tederess:tenderness lvely:lovely affecti:affection existece:existence feeligs:feelings mther:mother charmig:charming suday:sunday strager:stranger lati:Latin italia:italian pem:poem cffee:coffee rchesters:Rochester's thrfield:Thornfield diaa:Diana strgly:strongly sul:soul

Author Influences Content Set: Word Cloud before Cleaning Configuration

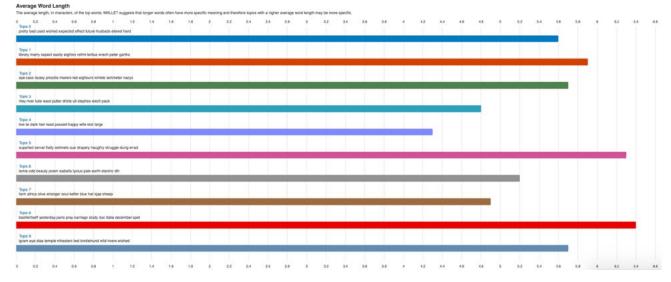


Author Influences Content Set: Word Cloud after Cleaning Configuration



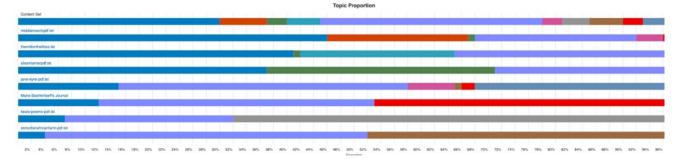
With my cleaning configuration having filtered out the most common OCR errors, I was now able to pursue my original goal of determining the topics that these authors portrayed in their works to see the extent of their influence on Mary MacLane.

# Topic Modeling Results



Author Influences Content Set Analysis: Topic Modeling Results with Average Word Length

#### Author Influences Content Set Analysis: Topic Proportion from Topic Modeling Results



The two visualizations provide insights into the comparison of content sets with Mary MacLane's primary sources. The first chart, focusing on average word length, highlights the specificity of each topic. Topics with higher average word lengths, such as Topic 5, suggest a more stylized or nuanced vocabulary. Topic 5, with words like "struggle," "servant," and "haughty," indicates themes of social hierarchy and interpersonal conflicts, making it the most specific topic. Topic 6, containing words like "ode," "beauty," and "poem," reflects a poetic or romantic focus, blending stylistic specificity with artistic expression. In contrast, Topic 7, with terms such as "farm" and "Africa," emphasizes geographic and cultural themes, though the shorter word length suggests simpler descriptive language. Meanwhile, Topic 4, with words like "live," "dark," and "passed," suggests themes of personal struggle, while Topic 0, with shorter and more generic terms, points to interpersonal or domestic relationships.

The second chart illustrates topic proportions across the content sets, revealing the thematic focus of each text. For instance, *Middlemarch, The Mill on the Floss*, and *Silas Marner* show strong representations of Topics 0 and 4, emphasizing familial dynamics and personal conflict. *Jane Eyre* is balanced across Topics 4 and 9, likely showcasing its blend of personal agency and Gothic elements. In contrast, *Marie Bashkirtseff's Journal* is dominated by Topics 4 and 8, reflecting its highly personal, self-reflective style. Keats' poems align exclusively with Topic 6, indicative of its poetic and romantic nature, and *The Story of an African Farm* focuses on Topic 7, emphasizing geographic, cultural, and postcolonial themes.

When compared to Mary MacLane's works, certain topics emerge as especially relevant. Topic 5, with words like "struggle," "servant," and "haughty," indicates themes of social hierarchy and interpersonal conflicts, making it the most specific topic. We witness an innate dissatisfaction in the human condition in MacLane's January 22 entry in *The Story of Mary MacLane*: "Yet, though we have forks, we are not happy. We scream and kick and struggle and weep just as they did a thousand years ago — when they had no forks." Topic 5 is most prevalent in *Jane Eyre*, and the aforementioned entry from MacLane's work undoubtedly shares similar elements to those that appear in the topic modeling.

Topic 6, associated with Keats' poems, offers a poetic lens that complements the lyrical and romanticized writing style that is found within MacLane's writings. An excerpt from MacLane's January 28 entry in *The Story of Mary MacLane* reads, "The fair earth seems to resolve itself into a thing oval and crisp and good and green and deliciously salt. I experience a feeling of fervent gladness that I am a female thing living, and that I have a tongue and some teeth, and salivary glands." Elements of nature and amiable adjectives from Topic 6, such as "earth," "beauty," and "pale," are certainly evoked in this passage of MacLane's, albeit in a uniquely corporeal manner.

Topic 8 is largely reserved for *Marie Bashkirtseff's Journal*. The word "December" in the topic is likely from the title of entries or descriptions of events from the month within Bashkirtseff's diary form, perhaps the most obvious element she shares with MacLane. However, words like "pray" also evoke a religious aspect that is certainly manifested in MacLane's work, although primarily through the devil. Most uniquely, perhaps, is the inclusion of "Paris" in the topic model. Bashkirtseff attended school in Paris during her early years, so her inclusion of the European city is likely from the perspective of a resident in the physical city. However, MacLane, despite being born in Canada, talks of her European heritage in *The Story of Mary MacLane* as an attribution to her self-declared genius: "My Scotch blood added to my genius sense has made me into a dangerous chemical compound." A more specific tie can be made between the two authors upon realizing that *I, Mary MacLane*, mentions Paris 6 different times. Perhaps MacLane's habitual reading and fondness of Bashkirtseff is related to the romanticization of Europe that manifested across her publications.

# **Great Falls Tribune Analysis**

# Content Set Curation

Mary MacLane began her writing career in Butte, Montana. To contextualize the local influence of Mary MacLane, I searched for archives of Montana newspapers via newspapers.com. I came across the Great Falls Tribune, located in Great Falls, Montana. I searched for the term "Mary MacLane" across this archive, which resulted in 169 results. I downloaded all of these as PDFs. However, to upload these to Gale to pursue analysis with the Lab's digial humanities tools, I had to convert these into text files. I used my MacOS Terminal to download Homebrew, Tesseract OCR, and Poppler to mass-convert these 169 files from PDFs to text files. To perform Optical Character Recognition (OCR) on a collection of historical newspaper PDFs, I began by organizing all the PDF files into a folder named tribunepdfs on my desktop. Additionally, I created an output folder, tribuneocroutput, on the desktop to store the resulting text files.

# Installation of Required Tools

To enable the conversion of PDFs to images and the extraction of text via OCR, I installed the necessary tools on my macOS system using Homebrew, a package manager for macOS. The following commands were executed in the Terminal:

Installing Homebrew: /bin/bash -c "\$(curl -fsSL https://raw.githubusercontent.com/Homebrew/install/HEAD/install.sh)"

Installing Tesseract OCR: brew install tesseract

Installing Poppler for PDF-to-image conversion: brew install poppler

# Testing and Verification

To ensure the tools were working correctly, I performed a test by manually converting a single PDF into images and extracting text using the following commands:

#### Converting a PDF to images:

pdftoppm -r 300 -png ~/Desktop/tribunepdfs/Great\_Falls\_Tribune\_1902\_04\_26\_Page\_5.pdf ~/Desktop/tribuneocroutput/test\_page

This command converted the pages of the specified PDF into PNG images at 300 DPI, storing the images in the tribuneocroutput folder.

Performing OCR on the generated image:

tesseract ~/Desktop/tribuneocroutput/test\_page-1.png ~/Desktop/tribuneocroutput/test\_page\_ocr -l eng

This command extracted text from the first image and saved the results as a .txt file. The successful execution of these commands confirmed the functionality of the tools.

## Automating the Workflow

To efficiently process the entire collection of PDFs, I wrote and executed a custom script. The script automated the conversion of each PDF into images and applied OCR to extract text from those images. Below is the script:

#!/bin/bash

# Directories INPUT\_DIR=~/Desktop/tribunepdfs OUTPUT\_DIR=~/Desktop/tribuneocroutput

# Create output directory if it doesn't exist mkdir -p "\$OUTPUT\_DIR"

# Convert PDF to images (300 DPI for better OCR accuracy)
echo "Converting \$pdf to images..."
pdftoppm -r 300 -png "\$pdf" "\$OUTPUT\_DIR/\${filename}\_page"

# Perform OCR on each image
for img in "\$OUTPUT\_DIR/\${filename}\_page"\*.png; do
 echo "Performing OCR on \$img..."
 tesseract "\$img" "\$OUTPUT\_DIR/\${filename}\_ocr" -1 eng
 rm "\$img" # Remove the image after OCR to save space
done

echo "Finished processing \$pdf" done

echo "All PDFs have been processed. OCR results are in \$OUTPUT\_DIR."

This script first converted each PDF into a set of high-resolution PNG images using pdftoppm. Each image was then processed using Tesseract OCR, which extracted text and saved it as .txt files in the tribuneocroutput folder. Temporary image files were deleted after text extraction to conserve storage space.

# Outcome

The workflow successfully processed all the PDFs in the tribunepdfs folder, resulting in a corresponding .txt file for each PDF in the tribuneocroutput folder. Because of the nature of the originally captured image documents, the OCR did not come across as accurately as I had hoped. If it were realistic to manually go through every text file and update the OCR, it would have led to accurate results. Further, if I had access to a paid OCR reader, it could have potentially led to better results. However, because this is a set of 169 full newspaper pages, and these installations through the MacOS terminal were 100% free, this was not feasible or realistic.

# Cleaning Configuration

I added these 169 documents into a content set named "Great Falls Tribune OCR." I ran an Ngram analysis to see what to include in my cleaning set. I exported the Ngram as a CSV to copy and paste the terms into the cleaning configuration. I manually went through the list and selected words and letter/number combinations that were repetitive or not useful to my goal. The majority of these were OCR errors.

Characters to drop: ".?!,:;()[]{}\*'''-??&?

The following words were excluded from this analysis:

a, about, above, across, after, afterwards, again, against, all, almost, alone, along, already, also, although, always, am, among, amongst, amoungst, amount, an, and, another, any, anyhow, anyone, anything, anyway, anywhere, are, around, as, at, back, be, became, because, become, becomes, becoming, been, before, beforehand, behind, being, below, beside, besides, between, beyond, bill, both, bottom, but, by, call, can, cannot, cant, co, computer, con, could, couldnt, cry, de, describe, detail, do, done, down, due, during, each, eg, eight, either, eleven, else, elsewhere, empty, enough, etc, even, ever, every, everyone, everything, everywhere, except, few, fifteen, fify, fill, find, fire, first, five, for, former, formerly, forty, found, four, from, front, full, further, get, give, go, had, has, hasnt, have, he, hence, her, here, hereafter, hereby, herein, hereupon, hers, herself, him, himself, his, how, however, hundred, i, ie, if, in, inc, indeed, interest, into, is, it, its, itself, keep, last, latter, latterly, least, less, ltd, made, many, may, me, meanwhile, might, mill, mine, more, moreover, most, mostly, move, much, must, my, myself, name, namely, neither,

never, nevertheless, next, nine, no, nobody, none, noone, nor, not, nothing, now, nowhere, of, off, often, on, once, one, only, onto, or, other, others, otherwise, our, ours, ourselves, out, over, own, part, per, perhaps, please, put, rather, re, same, see, seem, seemed, seeming, seems, serious, several, she, should, show, side, since, sincere, six, sixty, so, some, somehow, someone, something, sometime, sometimes, somewhere, still, such, system, take, ten, than, that, the, their, them, themselves, then, thence, there, thereafter, thereby, therefore, therein, thereupon, these, they, thick, thin, third, this, those, though, three, through, throughout, thru, thus, to, together, too, top, toward, towards, twelve, twenty, two, un, under, until, up, upon, us, very, via, was, we, well, were, what, whatever, when, whence, whenever, where, whereafter, whereas, whereby, wherein, whereupon, wherever, whether, which, while, whither, who, whoever, whole, whom, whose, why, will, with, within, without, would, yet, you, your, yours, yourself, yourselves, |, -, ., ee, Falls, ae, =, Great, ©, :, Tribune, Falls, , te, Oct, Page, 17, , Montana, (Great, (Great Falls, , (Great Falls, Montana), 2024, Falls Tribune, Falls Tribune (Great, Falls Tribune (Great Falls, , Falls, Montana), Oct 17, , Tribune (Great, Tribune (Great Falls, , Tribune (Great Falls, Montana), © 2024, (Great Falls, Montana) -, Falls, Montana) -, Montana) -, - Page, 2024 Newspapers.com., Newspapers.com., © 2024 Newspapers.com., 1, Rights, 2024 Newspapers.com. Rights, Newspapers.com. Rights, © 2024 Newspapers.com. Rights, &, 2024 Newspapers.com. Rights Reserved., Newspapers.com. Rights Reserved., Reserved., Rights Reserved., 3, oe, 4, Great Falls, eee, ?, ot, 2, FALLS, time, new, «, im, make, good, ?The, Downloaded, Downloaded Oct, Downloaded Oct 17, , said, ;, Great Falls Tribune, Great Falls Tribune (Great, J., A., t, ne, Se, om, W., e, et, th, ii, way, aa, years, ia, DAILY, ay, y, 10, just, ?The, FALLS DAILY, St., the, \_, did, ?, 0, Newspapers, ing, know, , -, Sun, , Falls, Montana) - Sun, , Montana) - Sun, , Sun, , al, Newspapers Great, Newspapers Great Falls, Newspapers Great Falls Tribune, il, Hi, f, ?the, fe, long, ts, ea, old, party, ta, 4, , 8, Daily, July, T, does, +, es, ite, s, taken, \*, eae, G., >, tn, year, ~, making, se, ty, C., E, FALLS, H., af, F., M., York, ce, fo, iy, w, went, Ht, er, far, in|, le, life, o, ti, ?and, ?of, ..., GREAT FALLS, R., it., wi, 20, 6, and., having, pe, question, tie, today, Cascade, P., deal, ge, high, it, world, ?, D., E., ate, ey, going, 1903, 9, Newspapersby, TRIBUNE, eet, en, given, inthe, st, », -1903, 1903 - Page, No., el, fi, lot, oo, ve, x, - Fri, Falls, Montana) - Fri, H, Montana) - Fri, , ||, Te, able, ag, ig, open, F, TRIBUNE, , ih, known, ng, tt, wil, #, S, ad, ago, called, os, thought, to., \$, 8, , GREAT FALLS, , Sat, , appears, came, ine, ore, room, set, took, trom, use, used, ye, - Sat, 2, Big, DAY, Falls, Montana) - Sat, Montana) - Sat, NATIONAL, T., ai, ar, got, ix, tae, that, , ue, ane, ete, nd, near, number, tee, thie, tne, 17, 2024Great, 17, 2024Great Falls, 17, 2024Great Falls Tribune, 2024Great, 2024Great Falls, 2024Great Falls Tribune, 2024Great Falls Tribune (Great, 6, , NEW, New York, Oct 17, 2024Great, Oct 17, 2024Great Falls, ¢, - Mon, , - Page 2Downloaded, - Page 2Downloaded Oct, 14, 2Downloaded, 2Downloaded Oct, 2Downloaded Oct 17, , 3 4, , 4, Conrad, 4, Conrad Bank, 7, , B, B., Canada, DAILY TRIBUNE, Downloaded Oct 17, 2024Great, FALLS DAILY TRIBUNE, Falls, Montana) - Mon, , Great Falls, , Mon, , Montana) - Mon, , Page 2Downloaded, Page 2Downloaded Oct, Page 2Downloaded Oct 17, brought, cost, d, doing, g, \$1, 1, 34, Conrad, 3 4, Conrad Bank, Carter, L., SS, ed, ere, makes, nee, to, , told, wee, z, ES, Ne, S., South, Sunday,

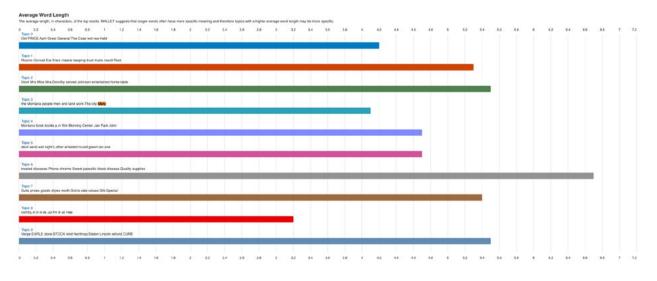
Thu, , a, , fs, here, , j, ly, meet, oa, ought, pee, ry, tell, thet, times, visit, wool, ??, %, - Thu, , 25, <Blancestry?, Chicago, , Falls, Montana) - Thu, , French, George, J, Montana) - Thu, , Sa, State, White, aay, aie, ail, amd, aoe, asked, ba, cee, ee ee, een, getting, gone, ma, nt, of the, rs, them, time, , tor, wae, ?, 18, , Dr., Ha, June, MORNING, , St, a., afternoon, ah, ana, and, , bank, ber, c, day, goes, hi, ial, ieee, interests, ir, late, light, m, spent, stand, the], u, le, §, - Tue, Ave., Blancestry:, Blancestry: Downloaded, Blancestry: Downloaded Oct, Blancestry: Downloaded Oct 17, , Denver, EE, Ee, Falls, Montana) - Tue, , Jan., M, Montana) - Tue, , Montana., Mra., Newspapersbys, Tue, Wash, William, ca, iH, iat, id, io, ith, let, p.m., r, si, skin, tl, tm, you, }, 12, 12, 29, 40, 5, <, Aug, Avenue, C, Hl, Hy, Man, O'LEARY, ATTORNEY, Pe, Wed, ant, ax, be, ei, fie, hie, man, mi, na, of, ont, oy, tas, ted, ter, tha, ther, ut,  $\frac{1}{2}$ , Wed, 18, 20, 25, 8, <Blancestry? Downloaded, <Blancestry? Downloaded Oct, <Blancestry? Downloaded Oct 17, , Ae, Falls, Montana) - Wed, Falls., GREAT FALLS DAILY, Hh, Le, March, Montana) - Wed, NewsGreat, NewsGreat Falls, NewsGreat Falls Tribune, NewsGreat Falls Tribune (Great, Oe, States, , S|, Tribune., Tt, , aaa, aes, aid, athe=, au, a|, bat, bo, ee eee, ees, eo, ft, ice, ihe, iia, mot, ss, thi, to, tr, win?a, 100, 15, 1902 - Page 2Downloaded, 1s, 200, 60, <Plancestry?, <Plancestry? Downloaded, < Plancestry? Downloaded Oct, < Plancestry? Downloaded Oct 17, , Apr, CENTRAL, Co., D, Th, Tom, Z, aad, absolutely, aed, and, aot, bi, cae, ct, cut, ef, forthe, ha, hae, him, , i., iti, ny, ol, ome, ote, pass, pat, po, q, rate, re-, re-|, ths, tion, ton, turn, wan, R, °, ?he, ?I, .., 1, 2, 27, , 3, , 30, ?, BANK, Best, British, F. O'LEARY, ATTORNEY, Good, Great Falls., Hf, Hil, L, Pa, Pree, Y, aH, army, att, b, wot, rea, Held, Mra, the, The, and, ane, comby, iit, iil, ile, Jul, Fri, ili, aii, Hee, OLEARYATTORNEY, Ear, BldgGREAT, Dir, Blancestry, Dec, Fourth, Reserved, Newspaperscom, comby, iie, ale, iii, imagecom//greatfallstribunenewspaperscom/by, Jan, Ave, Center, Downloaded, Registration, The, Reserved, Newspaperscom, the, mee, Sep, cast, AUGUST, Torrens, imagecom//greatfallstribunenewspaperscom/by, Sat, nae, Mon, comby, rae, imagecom//greatfallstribunenewspaperscom/by, ull, Wed, ata, Downloaded, https://greatfallstribunenewspaperscom/image, Sept, Cooper, and, the.

The following pairs follow this formula: "former word": "replacement word."

-1902:1902 1902 - Page:1902 Butte,:Butte Montana,:Montana MONTANA:Montana

devil:Devil

# Topic Modeling Results



#### Great Falls Tribune Analysis: Modeling Results with Average Word Length

# **Breakdown**

Topic 0: "Oct," "PRICE," "April," "Great," "General," "Case," "held."

The shorter word length (around 4 characters) indicates this topic likely focuses on dates, events, and general news reports with an emphasis on headlines, timing, and factual language.

Topic 1: "Rooms," "Conrad," "Ear," "friars," "keeping," "trust," "trusts," "Root."

The moderately high average word length suggests property, community news, or regional

affairs, potentially touching on real estate, businesses, or community trust and governance.

**Topic 2:** "Devil," "Mrs," "Miss," "Mra," "Dorothy," "served," "Johnson," "entertained," "home," "table."

This topic, with longer words, likely focuses on social events, domestic life, or society columns, with references to individuals, hospitality, and gatherings.

Topic 3: "Montana," "people," "men," "land," "work," "city," "Mary."

The moderately short word length and content suggest this topic addresses local issues, rural life, and the Montana region, with a focus on people, labor, and the landscape.

**Topic 4:** "Montana," "book," "books," "p.m," "film," "Morning," "Center," "Jan," "Park," "John." This topic appears to relate to publications, schedules, films, and events, likely including cultural or educational content with specific time markers.

**Topic 5:** "Devil," "send," "wat," "night," "Luther," "arrested," "round," "green," "tan," "ane." With a relatively long average word length, this topic may focus on crime reports, arrests, or legal issues, as well as dramatic or sensationalized news stories.

**Topic 6:** "treated," "diseases," "Phone," "chrome," "Sweet," "parasitic," "blood," "disease," "Quality," "supplies."

This topic centers on health, medical issues, and treatments, indicated by words related to diseases, supplies, and care.

**Topic 7:** "Suits," "prices," "goods," "styles," "worth," "Skirts," "sale," "values," "Silk," "Special." The focus here is on commerce, advertisements, and fashion, with words referencing prices, clothing, and consumer goods.

Topic 8: "comby," "iti," "ill," "ile," "Jul," "Fri," "aii," "Hee."

The shorter, less coherent terms and abbreviations suggest this topic involves classified ads, fragmented reports, or errors within the text.

**Topic 9:** "Verge," "EARLE," "store," "STOCK," "kind," "Northrup," "Staten," "Lincoln," "refund," "CURE."

This topic highlights commercial announcements, store promotions, or economic updates, particularly involving businesses and stocks.

# Observations

The repeated appearance of the word "devil" across multiple topics is compelling, especially given the lack of other overt religious terms in the topic modeling results. Religious extremism is not shown in this selection of Great Falls Tribune newspapers beyond that of Mary MacLane. In Mary MacLane's writings, particularly in *I, Mary MacLane,* and *The Story of Mary MacLane*, the devil is a central and recurring figure. MacLane uses the concept of the devil as a metaphor for desire, rebellion, and her yearning for recognition, freedom, and companionship. The absence of overt religious terms like "God," "Christ," or "prayer" in most topics could indicate a shift toward secular or metaphorical uses of "devil," where it operates independently of traditional religious contexts.

Varying Newspaper Entries from the Great Falls Tribune, 1902





From the Denver Post. And now, wonderful as it may seem, that same Devil with whom I was once so madly in love—and who held me in a so light contempt—has fallen in love with me.

It is indeed wonderful to have anyone—a devil, or a banker, or a plumber—in love with you. It is still more wonderful if you were once madly in love with the Devil, or the banker, or the plumber, when he was not in love with you.

By the law of compensation, or by that of poetic justice, I am no longes in love with my Devil. I have gone forth. I have seen bits of the world, It may be that I am even in love with someone else—back in Boston, a banker or a plumber—or maybe he's something else quite different. At any rate, my passion for the Devil has dissolved, and is long since scattered through the spheres.

Comes the Devil in his turn and falls in love with me. The topic modeling presents an image of what an early 20th-century small town in Montana was largely concerned with: diseases, economies and wealth, and politics within their locale. In the midst of this shines Mary MacLane: the opposite of an objective account of day-to-day happenings, the 19-year-old author was enough of a concern of the town to be written about more than 169 times during her literary debut. Given that Mary MacLane's works often focus on personal introspection, existential questions, and local Montana settings, the prominence of Topic 3 (Montana, people, land) is particularly significant. The local news coverage aligns with MacLane's connection to Montana's life and her themes of place and identity. Additionally, Topic 2 (domestic and social life) and Topic 5 (dramatic or sensationalized content) may provide context for the public's interest in personal stories and striking events. Writing specifically for the eyes of others by evoking dramatized language is certainly reminiscent of MacLane's confessional style.

#### **Reflections and Takeaways**

The methodologies employed, particularly Topic Modeling and Named Entity Recognition, proved effective in identifying thematic patterns and stylistic consistencies across MacLane's primary works and those of her influences. These tools illuminated her alignment with figures like Keats, Bashkirtseff, and Brontë in their shared focus on introspection, emotional depth, and poetic beauty. Additionally, the integration of Great Falls Tribune analyses allowed me to visualize how her Montana upbringing shaped her voice and public reception, as well as how her controversial relationship with the Devil was situated on a larger, local scale. However, certain challenges arose during the research process. One notable issue was the significant OCR inaccuracies when transferring Great Falls Tribune articles into the Gale Digital Scholar Lab. Many documents displayed subpar OCR confidence, resulting in an overwhelming presence of errors in the analyses. This required extensive manual cleaning and content curation, which, while effective in improving the data quality, limited the scope of the analysis. These limitations truly underscore the need for refining the cleaning process and incorporating a larger content set in future research.

Moving forward, adjustments to the methodology could include pre-selecting higher-quality OCR texts, particularly for archival newspapers, to ensure cleaner data for computational analysis. Expanding the content set to include works by lesser-known contemporaries or additional Montana newspapers could also offer new perspectives on MacLane's cultural positioning. Overall, I found that combining digital tools with more traditional close-reading methods provided a balanced approach to literary analysis. MacLane is one of many female authors who engaged in controversy with elegant literary force. Analyzing the direct literary impact her 19th-century influences had on her writings forces us to acknowledge a larger literary tradition that is often overshadowed by isolated instances of individualizing controversial figures like MacLane. Deeper investigations into her reception within early feminist and queer literary frameworks, as well as comparative studies with other Western writers who used religious figures as symbols of liberation, could further highlight MacLane's innovative contributions to American literature.

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