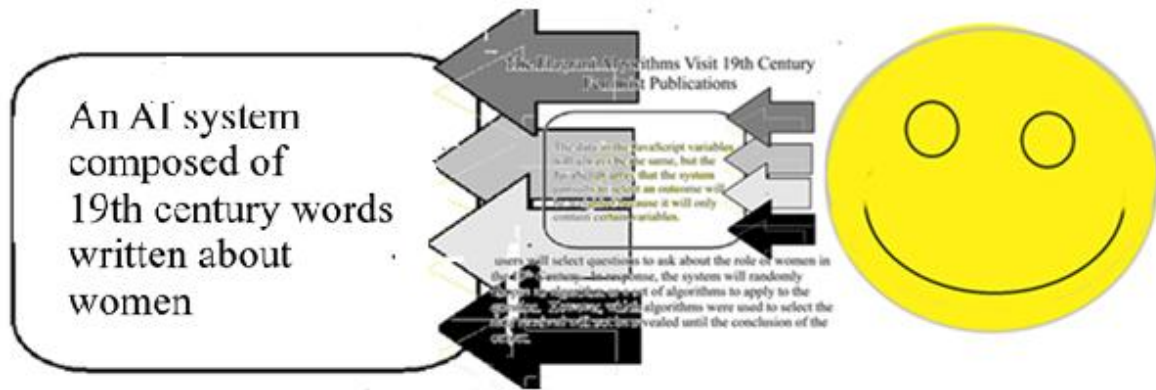


Judy Malloy

The Flagrant Algorithms Visit Women in the 19th Century



The JavaScript array of variables that the system consults in response to a question will always be the same, but selected at random, algorithms that control how the data is accessed produce surprisingly different results.

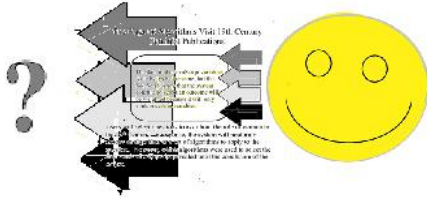
Issues of racial bias, cultural bias, employment bias, and copyright violation are inherent in contemporary AI systems. [1] But the role of algorithms in controlling data generated from AI systems is not widely understood. *The Flagrant Algorithms*, an information artist's response, explores the unseen role of algorithms in generating data from AI systems.

“To-date, business organizations have operated without consequence to develop and implement AI solutions that afford them efficiencies and competitive advantages; this approach is no longer sustainable because of the repeated negative impacts resulting from biased data,” Kirsten Lloyd observes in “Bias Amplification in Artificial Intelligence Systems.” She points out that “The first line of defense against creating AI systems that inflict unfair treatment is to give more attention to how datasets are constructed before operationalizing them”. [2]

Created to demonstrate how algorithms control access to AI datasets – as well as to look at issues of content training by people who are not scholars in the field -- *The Flagrant Algorithms* is an information artist's dataset of quotes from 19th century writing on the role of women in the 19th Century . As occurs in such systems, new data will be continually added at

https://www.narrabase.net/algorithms/index_fa.html

It asks the question



What was it like to be a woman in the 19th Century?

In response, unseen by the viewer, the system randomly chooses an algorithm to filter results.

Despite some repetition -- that will be reduced with continuing work on data input -- selecting “ask again” multiple times demonstrates how unseen filter algorithms can impact responses from AI systems.

Background

Years ago, I did contract cataloguing for the Goddard Space Flight Center’s then in progress database of library holdings. When an entry was completed, I dropped it into a slot on the wall from whence, somehow it arrived at Goddard. Even then, I was concerned that the accuracy of the data which I submitted was my responsibility. A few years later, as team head, I designed an information retrieval system for the library of a NASA contractor that was until recently Ball Aerospace. My colleagues and I programmed this database, and we entered the data ourselves. As a cautionary note, I recall setting aside what might have been a primary source because the contents were difficult to catalog. (😞)

As database creation became more ubiquitous, concerned about issues that could occur in data systems, in 1986 in a Bad Information conference on The WELL, I produced a database of questionable information. From WELL users, over 400 entries were received for this database of Bad Information. [3]

Data accuracy is primary in AI systems, but the role of algorithms in generating data from AI systems is less publicly understood. To create a model to demonstrate this, in late 2025 I began a dataset in answer to this question:

Data Selection and Input

The resulting work is an information artist’s dataset of quotes from 19th century writing on the role of women in the 19th Century

It was not undertaken as a scholar in the field, and obviously, it is not a definitive database. Instead, it is meant to illustrate how the use of algorithms can shape output from contemporary

corporate-made AI systems. Nevertheless, the process of creating “What was it like to be a woman in the 19th Century?” continues fascinating.

As regards commercial AI systems, the selection of data itself is an issue, as my imperfect methods indicate.

Currently, data sources include:

Jane Austen, *The Letters of Jane Austen*, Letters to her sister Cassandra Austen, 1800; Jane Austen, *Pride Prejudice*, 1813; Jane Austen, *Persuasion*, 1817; Nellie Bly, *The New York World*, November 27, 1887; Nellie Bly, *The New York World*, January 23, 1890; Elizabeth Barrett Browning, letters in *The Letters of Robert Browning and Elizabeth Barrett Barrett, Vol. 1 (of 2) 1845-1846*; Charles Darwin, *The Descent of Man, and Selection in Relation to Sex*, 1871; Emily Dickinson, poems, 1830–1886; Margaret Fuller, *Woman in the Nineteenth Century*, 1843; W. S. Gilbert, *Princess Ida* (lyrics, 1883); Charlotte Perkins Gilman, *The Home: Its Work and Influence*, 1903; Frances Ellen Watkins Harper, "A Double Standard", 1896; Nathaniel Hawthorne, *The Scarlet Letter*, 1850; Helen Kendrick Johnson, *Women and the Republic* 1897; John Keats, "Ode to Psyche", 1819; Edmonia Lewis, source unattributed, 1878; Edmonia Lewis, source unattributed, nd; Violet Markham, "Anti-Suffrage Speech at the Royal Albert Hall", 1912; full Bernard Shaw, Dedication to *Man and Superman*, 1903; Elizabeth Cady Stanton, "The Declaration of Sentiments", 1848; Alfred Lord Tennyson, "The Princess", 1847; Queen Victoria, Letter to Sir Theodore Martin, 1870; Mary Wollstonecraft, *A Vindication of the Rights of Woman*.

The code to print out more complete information about each of the sources has been completed and is now available at <https://www.narrabase.net/algorithms/sources.html>

May 3, 2026

Because users of AI apps generally do not know how AI app output can be slanted by access algorithms, in this work, the algorithms that produce different results from the same data are purposefully not entirely visible to the user of this resource.

However, because reviewers might wonder if there was a way to know which algorithm is randomly triggered in each response, at this point, the algorithms which access exactly the same data are:

algorithms1.html – generates 2 variables from all the data at random

algorithms2.html – generates 3 variables from women-spoken data at random

algorithms3.html – generates 4 variables from men-spoken data at random

If you look in your browser’s url field, you can easily determine which algorithm your question accessed.

April 21, 2026

It has been difficult to find reliable initial sources for the words of 19TH Century Black American Sculptor Edmonia Lewis. Here are her words that I entered today:

“Sometimes the times were dark and the outlook was lonesome, but where there is a will, there is a way. That is what I tell my people whenever I meet them, that they must not be discouraged, but work ahead until the world is bound to respect them for what they have accomplished.”

“I was practically driven to Rome in order to obtain the opportunities for art-culture, and to find a social atmosphere where I was not constantly reminded of my color. The land of liberty had no room for a colored sculptor. “

“Sculpture is my way of immortalizing the stories and experiences of those who have been forgotten.”

“I sculpt to leave a mark on this world, to show that I existed.”

March 31, 2026

Nelly Bly!

March 23, 2026

That Bernard Shaw’s *Man and Superman* was published in 1903, three years into the 20th century, is evident in his witty approach -- with underlying serious meaning -- to the role of women as the 19th century turned.

“Give women the vote, and in five years there will be a crushing tax on bachelors. Men, on the other hand, attach penalties to marriage, depriving women of property, of the franchise, of the free use of their limbs...”

And

“That the men, to protect themselves against a too aggressive prosecution of the women's business, have set up a feeble romantic convention that the initiative in sex business must, always come from the man, is true; but the pretense is so shallow that even in the theatre, that last sanctuary of unreality, it imposes only on the inexperienced.”

So far, I have only used words – as are those above – from Shaw’s Dedication to *Man and Superman*, but much more Shaw could be added. This is true of many of the sources; I do not want any one voice to dominate.

Not yet entered from Shaw’s 1903 dedication to *Man and Superman*:

“...when women are wronged they do not group themselves pathetically to sing
“ "Protegga il giusto cielo": they grasp formidable legal and social weapons, and retaliate. Political parties are wrecked and public careers undone by a single indiscretion.

A man had better have all the statues in London to supper with him, ugly as they are, than be brought to the bar of the Nonconformist Conscience by Donna Elvira.”

March 11, 2026

Considering the extraordinary approach to the “double standard“ in Hawthorne’s *The Scarlet Letter* -- which takes place in Puritan New England -- I was unsure whether or not to use passages from *The Scarlet Letter* in *The Flagrant Algorithms Visit Women in the 19th Century*.

This week I reread *The Scarlet Letter*. Then, I revisited the publication date. *The Scarlet Letter* was published in 1850, a central time in the 19th Century when women were beginning to question the moral codes that ruled their lives.

It was clear that passages from *The Scarlet Letter* should be included; this has begun,

March 6, 2026

The code to print out more complete information about each of the sources has been completed and is now available at <https://www.narrabase.net/algorithms/sources.html>

Within the work it can be accessed when the word **sources** appears to the right of the top image (click on it). Divulging the sources detracts from the mystery of *The Flagrant Algorithms*, but doing this credits all the sources, and it calls attention to what is missing in commercial AI apps. Attention is also called to the selective nature of this model.

Because we seldom see a list like this in commercial AI apps, it may appear that they are more definitive than they actually are.

March 2, 2026

When I began this work, the primary reason was to call attention to the unseen role of algorithms in AI systems. I chose the struggle for women’s rights in the 19th century because the subject seemed appropriate. However, as the work progressed, what I was seeing was not the romantic picture painted by contemporary romcoms, and the subject was so difficult that I worried that it was overpowering the initial premise.

However, now -- as Women’s History Month begins -- the work has taken shape, and the content itself is beginning to work with the original premise.

In honor of Women’s History Month which occurs every March, I have added text from the influential “Declaration of Sentiments”. Authored mainly by Elizabeth Cady Stanton, the “Declaration of Sentiments” was signed at the Seneca Falls Convention at Seneca Falls, New York, July 19–20, 1848.

var stanton1 = "...in view of this entire disfranchisement of one-half the people of this country, their social and religious degradation, in view of the unjust laws and because women do feel themselves aggrieved, oppressed, and fraudulently deprived of their most sacred rights, we insist that they have immediate admission to all the rights and privileges which belong to them as citizens of the United States.
";

February 23, 2026

This week, in search of the double standard issue in the 19th century, brought up by the texts from Francis Parkman. I recalled this statement from his *The Woman Question*, 1879:

“A man can retrieve lost honor, and a woman can not.”

The entire quote is:

“A man can retrieve lost honor, and a woman can not. Whence arise the different values attached to the same virtue in men and women, and why has every attempt to make them equal signally failed? The difference is due to the structure of civilized society, which, on both its political and its social side, is built on the family. Women, and not men, are of necessity the guardians of the integrity of the family and the truth of succession, with all the interests of affection, of maintenance, and of inheritance involved in them. Hence the virtue in question is far more important in them than in men.”

With some hesitation, because I knew what I was going to find in the words of one my favorite writers, I revisited Jane Austen’s *Pride and Prejudice*.

From Mr. Collins to her father after Lydia elopes with Wickham:

“Let me advise you, then, my dear sir, to console yourself as much as possible, to throw off your unworthy child from your affection for ever, and leave her to reap the fruits of her own heinous offence.”

And even from Lizzie herself:

She has no money, no connections, nothing that can tempt him, she is lost forever.”

February 11, 2026

Although the primary purpose of *The Flagrant Algorithms* is to demonstrate how access algorithms can alter meaning in datasets, it also questions who trains data selection -- and why at this point scholars in all fields should be integrally involved in this process. That said, once in a while there is also a place for information artists.

This week, words from Charlotte Perkins Gilman's *The Home: Its Work and Influence*, (1903) were added. I was going to use her *The Yellow Wallpaper*, but her *The House* is better in this resource.

For example:

"The young man at home is almost a negligible factor—he does not stay in it any more than he can help. The young woman at home finds her growing individuality an increasing disadvantage, and many times makes a too hasty marriage because she is not happy at home—in order to have "a home of her own," where she still piously believes all will be well."

February 2, 2026

Words from Violet Markham's 1912 Anti-Suffrage Speech at the Royal Albert Hall were added because she is an example of a woman who continued to seek reform in some areas but did not support political power for women. For example:

"Suffragists claim to stand for the spiritual forces of the future. I tell them that they have not yet learnt the elementary spiritual truth that renunciation is eternally a greater thing than possession."

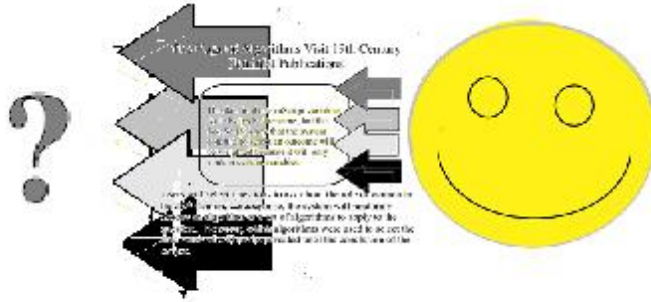
The addition of words from Queen Victoria's letters was unexpected. Words about her role as a woman of power were expected. But this is what I found in a Letter to Sir Theodore Martin .(1870)

"I am most anxious to enlist everyone who can speak or write to join in checking this mad, wicked folly of 'Women's Rights,' with all its attendant horrors, on which her poor feeble sex is bent, forgetting every sense of womanly feelings and propriety. Feminists ought to get a good whipping. Were woman to 'unsex' themselves by claiming equality with men, they would become the most hateful, heathen and disgusting of beings and would surely perish without male protection."

The Algorithms

At this point the system works like this:

___ Users are asked



What was it like to be a woman in the 19th Century?

In response, the system randomly chooses an algorithm or a set of algorithms to apply to the question. However, which algorithms were used to select the data received are not revealed -- i.e. when a user asks to generate data, the system chooses algorithms at random. Each of these algorithms generates data, but a public user will not know which algorithm has been activated.

As noted, the purpose is not to create a scholarly resource, it is to demonstrate how unseen algorithms impact output from AI systems. In this work of information art, the questionable information input process also demonstrates why information in AI systems should not replace the work of scholars in the field.

So far, I have coded three algorithms:

algorithms1.html – generates 2 variables from all the data at random

algorithms2.html – generates 3 variables from women-centered data

algorithms3.html – generates 4 variables from men-centered data

Each of these generates data, but a public user will not know which algorithm has been activated.

Additionally, an algorithm is being created to print out the sources of citations in all the variables. Although it is boring as compared to the output generated with different algorithms, the point is that sources of data in AI apps could be cited.

Why not?

The original notes about the process will be summarized and eventually included in this about file.

Notes:

[1] Among many other sources, for a recent look from Stanford see Katharine Miller, "Covert Racism in AI: How Language Models Are Reinforcing Outdated Stereotypes" , Stanford HAI,

September 3, 2024 Available at <https://hai.stanford.edu/news/covert-racism-ai-how-language-models-are-reinforcing-outdated-stereotypes>

[2] Kirsten Lloyd, "Bias Amplification in Artificial Intelligence Systems," Presented at AAAI FSS-18: Artificial Intelligence in Government and Public Sector, Arlington, Virginia, 2018. Available at <https://arxiv.org/abs/1809.07842>

[3] Judy Malloy, Producer, Bad Information is available at <https://people.well.com/user/jmalloy/badinfo/bad.html>

In March 2024, Erin Dickey presented my Bad Information projects at the National Gallery of Art.in "'Computers Never Make Mistakes': Judy Malloy's Bad Information". Erin Dickey's thesis is available at <https://ngabiographies.org/research/44edickey>

With deep background in computerizing technical library collections, as an artist I have been working with generative output since 1987, when I began coding "Terminals," the third File of "Uncle Roger". In 2016, my work in this field earned Second Prize in the Neukom Institute for Computational Science, at Dartmouth University's Turing Test in the Computational Arts. Recent work in this field includes my *The Fabric of Everyday Life*, shown at The MIT Trope Tank in 2023.

Completely self-coded, *The Flagrant Algorithms* demonstrates how AI systems can use algorithms to create bias in public information and/or in situations such as employment. Also, it demonstrates to students that they can make their own systems, and it is not terribly difficult to do this.