It’s a Man’s Wikipedia

gender bias in Wikipedia
paper by Wagner et al. (2015)

Eric Kaiser
Wikipedia

- biographies of notable people + links between them
- editors are predominantly white and male
- highly influential → important to measure bias
What the paper does

• measure different types of gender bias
• six language editions
• very broad overview, simple measures
Types of bias

• **coverage bias**
  how many women and men are portrayed on Wikipedia?

• **structural bias**
  how do links connect people? Does one gender link more to another?

• **lexical bias**
  are men and women portrayed differently? (choice of words)

• **visibility bias**
  how many women and men make it to the front page?
Coverage bias

- reference datasets
  - Freebase
  - Pantheon
  - Human Accomplishment
Coverage bias

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Coverage bias

• reference datasets
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• very little overlap

• unknown amount of bias, somewhat related to Wikipedia
Coverage bias

- women are apparently slightly overrepresented \(\rightarrow\) no bias here (?)
- relies on reference datasets

(a) Freebase  
(b) HA  
(c) Pantheon
Structural bias

• reference data: “null models” (randomized)
• measures: assortativity, asymmetry, centrality
Structural bias

• assortativity
  how much do people of the same gender stay among themselves?

\[ L(g_1, g_2) = \log \left( \frac{P(to = g_2 | from = g_1)}{P(to = g_2)} \right) \]
Structural bias

• asymmetry
does one gender link more to the other than vice versa?

\[ A = L(F, M) - L(M, F) \]
Structural bias

• centrality
  number of links to the person

<table>
<thead>
<tr>
<th></th>
<th>$W_i$</th>
<th>$p_i &lt;$</th>
<th>$ks_i &lt;$</th>
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<td>RU</td>
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<td>$10^{-4}$</td>
<td>$10^{-7}$</td>
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</table>
Lexical bias

• Naive Bayes classifier (≈text classification)
  • which words are the best indicators for gender?
  • are there any words that are used disproportionately more for women?

• word categories
  • gender (“man”, “woman”, “lady” etc.)
  • relationship (“husband”, “married”, “divorced” etc.)
  • family (“children”, “mother”, “grandmother” etc.)
Lexical bias

• best indicators for men: words from specific domains
• best indicators for women: gender/relationship/family words
  those make up about 25% of the top 150 indicators
Lexical bias
Lexical bias

<table>
<thead>
<tr>
<th>word stem</th>
<th>women</th>
<th>men (by definition)</th>
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</thead>
<tbody>
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<td>husband</td>
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<tr>
<td>female</td>
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<td>6.1</td>
<td>1.0</td>
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<td>woman</td>
<td>5.6</td>
<td>1.0</td>
</tr>
<tr>
<td>grandmoth</td>
<td>5.5</td>
<td>1.0</td>
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<tr>
<td>girl</td>
<td>5.3</td>
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<tr>
<td>mrs</td>
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<td>1.0</td>
</tr>
<tr>
<td>divorc</td>
<td>4.4</td>
<td>1.0</td>
</tr>
</tbody>
</table>
Percy Bysshe Shelley

From Wikipedia, the free encyclopedia

"Percy Shelley" redirects here. For the son of the poet, see Percy Florence Shelley. For the English potter, see Percy Shelley (potter).

"Shelley" redirects here. For other uses, see Shelley (disambiguation).

Percy Bysshe Shelley (1 July 1792 – 8 July 1822) was one of the major English Romantic poets, who is regarded by some as among the finest lyric and philosophical poets in the English language, and one of the most influential. A radical in his poetry as well as in his political and social views, Shelley did not see fame during his lifetime, but recognition of his achievements in poetry grew steadily following his death. Shelley was a key member of a close circle of visionary poets and writers that included Lord Byron, John Keats, Leigh Hunt, Thomas Love Peacock and his own second wife, Mary Shelley, the author of Frankenstein.

Shelley is perhaps best known for classic poems such as "Ozymandias", "Ode to the West Wind", "To a Skylark", "Music, When Soft Voices Die", "The Cloud" and "The Masque of Anarchy". His other major works include a groundbreaking verse drama, The Cenci (1819), and long visionary, philosophical poems such as Queen Mab (later reworked as The Daemon of the World), Alastor, The Revolt of Islam, Adonais, Prometheus Unbound (1820) – widely considered to be his masterpiece –, Hellas: A Lyrical Drama (1821) and his final, unfinished work, The Triumph of Life (1822).

Shelley's close circle of friends included some of the most important progressive thinkers of the day, including his father-in-law, the philosopher William Godwin, and Leigh Hunt. Though Shelley's poetry and prose output remained steady throughout his life, most publishers and journals declined to publish his work for fear of being arrested for either blasphemy or sedition. Shelley's poetry sometimes had only an underground readership during his day, but his poetic achievements are widely recognized today, and his political and social thought had an impact on the Chartists and other movements in England, and reach down to the present day. Shelley's theories of economics and morality, for example, had a profound influence on Karl Marx, his early works and writings on nonviolent resistance influenced Leo Tolstoy, whose writings on the subject in turn influenced Mahatma Gandhi, and through him Martin Luther King Jr. and others practicing nonviolence during the American civil rights movement.

Shelley became a lodestar to the subsequent three or four generations of poets, including important Victorian and Pre-Raphaelite poets such as Robert Browning and Dante Gabriel Rossetti. He was admired by Oscar Wilde, Thomas Hardy, George Bernard Shaw, Leo Tolstoy, Bertrand Russell, W. B. Yeats, Upton Sinclair and Isadora Duncan. Henry David Thoreau's Civil Disobedience was apparently influenced by Shelley's writings and theories on nonviolence in protest and political action. Shelley's popularity and influence has continued to grow in contemporary poetry circles.

Contents

1 Life
  1.1 Early life and education
  1.2 Marriage

Portrait of Shelley, by Alfred Clint (1823)

Born 4 August 1792
Hortham, Sussex, England

Died 8 July 1822 (aged 29)
Gulf of La Spezia, Kingdom of Sardinia (now Italy)

Occupation Poet - dramatist - essayist - novelist

Nationality English

Education University of Oxford

Literary movement Romanticism
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Mary Shelley

From Wikipedia, the free encyclopedia

For the romance film, see Mary Shelley (film).

"Mary Wollstonecraft Godwin" redirects here. For her mother, see Mary Wollstonecraft.

Mary Wollstonecraft Shelley (UK /wɒlstənˈkraft/; US /wɔlstərnˈkraft/, née Godwin; 30 August 1797 – 1 February 1851) was an English novelist who wrote the Gothic novel Frankenstein, or, The Modern Prometheus (1818). She also edited and promoted the works of her husband, the Romantic poet and philosopher Percy Bysshe Shelley. Her father was the political philosopher William Godwin and her mother was the philosopher and feminist Mary Wollstonecraft. Shelley's mother died less than a month after giving birth to her. She was raised by her father who was able to provide her with a rich if informal education, encouraging her to adhere to his own anarchist political theories. When she was four, her father married a neighbour with whom Shelley came to have a troubled relationship.

In 1814, Shelley began a romance with one of her father's political followers, Percy Bysshe Shelley, who was already married. Together with her stepson, Claire Clairmont, she and Percy left for France and travelled through Europe. Upon their return to England, Shelley was pregnant with Percy's child. Over the next two years, she and Percy faced ostracism, constant debt and the death of their prematurely born daughter. They married in late 1816, after the suicide of Percy Shelley's first wife, Harriet.

In 1816, the couple famously spent a summer with Lord Byron, John William Polidori and Claire Clairmont near Geneva, Switzerland, where Shelley conceived the idea for her novel Frankenstein. The Shelleys left Britain in 1816 for Italy, where their second and third children died before Shelley gave birth to her last and only surviving child, Percy Florence Shelley. In 1832, her husband drowned when his sailing boat sank during a storm near Viareggio. A year later, Shelley returned to England and from then on devoted herself to the upbringing of her son and a career as a professional author. The last decade of her life was dogged by illness, most likely caused by the brain tumour which killed her at age 53.

Until the 1970s, Shelley was known mainly for her efforts to publish her husband's works and for her novel Frankenstein, which remains widely read and has inspired many theatrical and film adaptations. Recent scholarship has yielded a more comprehensive view of Shelley's achievements. Scholars have shown increasing interest in her literary output, particularly in her novels, which include the historical novels Valperga (1823) and Perkin Warbeck (1830), the apocalyptic novel The Last Man (1826) and her final two novels, Lodora (1835) and Falkner (1837). Studies of her lesser-known works, such as the travel book Rambles in Germany and Italy (1844) and the biographical articles for Dorothea Lardner's Cabinet Cyclopaedia (1829–1848), support the growing view that Shelley remained a political radical throughout her life. Shelley's works often argue that cooperation and sympathy, particularly as practised by women in the family, were the ways to reform civil society. This view was a direct challenge to the individualistic Romantic ethos promoted by Percy Shelley and the Enlightenment political theories articulated by her father, William Godwin.
Visibility bias

• proportion of men and women who make it to the front page
• magnitudes too small
  → no evidence for bias here
Conclusion

• coverage bias ×
• structural bias ✓
• lexical bias ✓
• visibility bias ×
Conclusion

• Wikipedia is aware of bias
• still: the way women are portrayed is different
• structural bias may have impact on search engines
• encourage editors to pay attention
Potential questions to discuss

• can you think of more types of bias?
• does the choice of reference data make sense?
• how strong are the results?
• bias in other media, traditional or otherwise?