# Gender gap on Wikipedia (and GitHub)

A report on developments and the status quo

## Discrimination in the tech industry

• GitHub: 14 million users

Pull-request of females more often rejected

• Why is that?

## Discrimination in the tech industry

Wikipedia: largest encyclopedia of mankind

Most editors are male

Acceptance rating on articles about females is low

## Implications?

Missing information leads to lack of content variety

Lack of content variety leads to bias

• Bias leads to discrimination

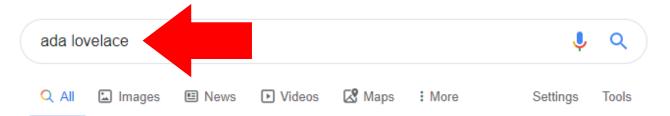
## Example: assistive devices

• Home assistance: Alexa, Google Assistant, etc.

• Apps: Siri, Cortana, etc.

Google search





About 5.930.000 results (0,71 seconds)

en.wikipedia.org > wiki > Ada\_Lovelace ▼

#### Ada Lovelace - Wikipedia

Augusta Ada King, Countess of Lovelace (née Byron; 10 Deceny was an English mathematician and writer, chiefly known for her proposed mechanical general-purpose computer, the Analytical

Known for: Mathematics, computing Died: 27 November 18

Marylebo...

Resting place: Church of St. Mary Magdalene, Born: The Hon. Augusta Ada Byro.

Decem...

Charles Babbage · Analytical Engine · William King-Noel, 1st Earl of · Lady Byron

People also ask	
What is Ada Lovelace famous for?	~
What did Ada Lovelace do for computers?	~
How did Ada Lovelace die?	~
What did Ada Lovelace create?	~



### Ada Lovelace



Mathematician

Augusta Ada King, Countess of Lovelace was an English mathematician and writer, chiefly known for her work on Charles Babbage's proposed mechanical general-purpose computer, the Analytical Engine. Wikipedia

Born: December 10, 1815, London, United Kingdom

Died: November 27, 1852, Marylebone, London, United Kingdom

Full name: Augusta Ada King-Noel, Countess of Lovelace

Spouse: William King-Noel, 1st Earl of Lovelace (m. 1835–1852)

Foodback

November 1852)

## State of research interest

• Systemic bias: academically recognized

 New Media shift: Gender Gap is being researched in open source & open data

## Considerations / Limitations

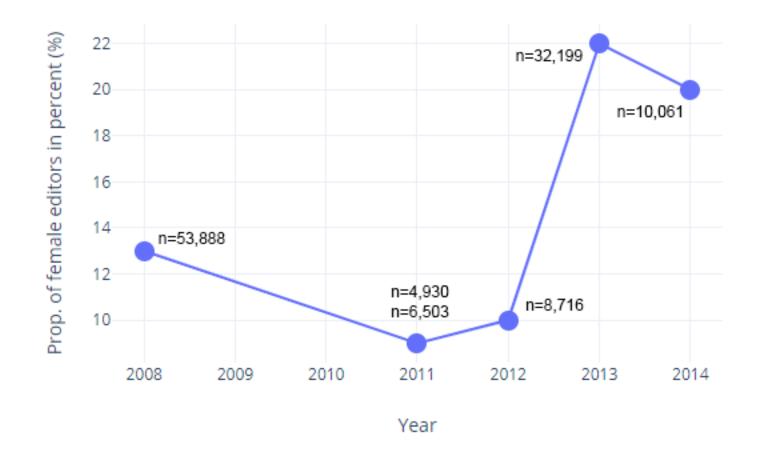
Most studies conducted in western world

Most studies are user studies

- Not enough research on LGBTQ+ within Open Source / Open Data
  - We thus focused on the gender gap between male & female

## Wikipedia – Female editors

- 6 studies published 2008-2014 by Wikimedia Foundation
- Strongest estimate: 22% of editors are women
- Positive trend since 2011



## Wikipedia – Self-perception

- Helgeson et al.: difference between male & female self-perception & confidence
  - Why? Societal? Experiences?
  - Needs further research

- Hinnosaar et al.: gender gap due to difference in self-perception
  - Because of Wikipedia or rather external influence?
  - Needs further research

## Wikipedia – Conflicts with contributions

- Lam et al:
  - Female newcomer-editors more likely to quit Wikipedia after their edits get reverted
  - Articles with females dominating the edits are significantly more often subject to heated debates
- Conflicts → discomfort → demotivation → quitting

## Wikipedia – Notability criteria

• Wagner et al.: acceptance criteria often unfavorable towards women

- Klein et al.: situation is getting considerably better
  - World is changing & it is reflected in Wikipedia

# How to combat the gender gap on Wikipedia? WE SUGGEST

- Be careful when reviewing edits of newcomers
  - Emphasize this in Wiki-guidelines
- Thank users for their contributions  $\rightarrow$  strengthen self-esteem

Encourage participation through female-focused info events