

Gender gap in FLOSS

A report on developments and the status quo

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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



ada lovelace



All

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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 December 1815 – 27 November 1852) was an English mathematician and writer, chiefly known for her work on Charles Babbage's proposed mechanical general-purpose computer, the Analytical Engine.

Known for: Mathematics, computing

Died: 27 November 1852

Resting place: Marylebo...

Resting place: Church of St. Mary Magdalene,

Born: The Hon. Augusta Ada Byron,

...

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?



Feedback



More images

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)

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

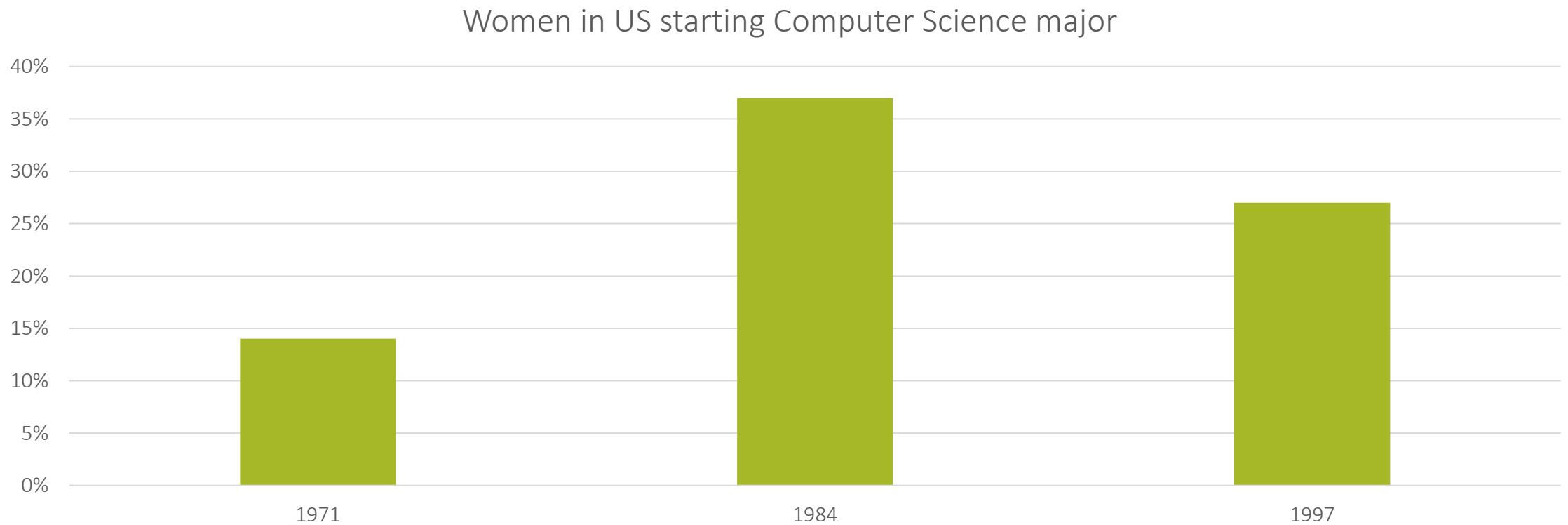
Be careful when reviewing edits of newcomers

Emphasize this in Wiki-guidelines

Thank users for their contributions → strengthen self-esteem

Encourage participation through female-focused info events

Female Participation in Computer Science



Stereotypes

Examples: male-dominated, brilliant, nerdy, lack social-skills

Media portrays computer scientists in a stereotypical manner

Hypothesis: Women don't consider Computer Science careers because of stereotypes

Stereotypes in childhood with occupation choice

Social Barrier

Personal

- Hesitation in beginning a career in masculine field

- Work-family balance?

- Under-estimation

- Put at disadvantage for displaying expertise

Outside

- People lack understanding of the field

- Don't recommend because it's perceived more appropriate for men

More likely to pursue CS when family supports it

Role Models

Lack of female role models nowadays

Richest and most influential computer scientists usually men

Exposure to Computers

Financial situation

High-poverty school → little access to computers

Gender

Difference in use of computers

Boys more likely to have access to computers

First experience with computers because of video games

Boys more likely to use computer for coding

Girls start using computer later

Thank you!

Q & A