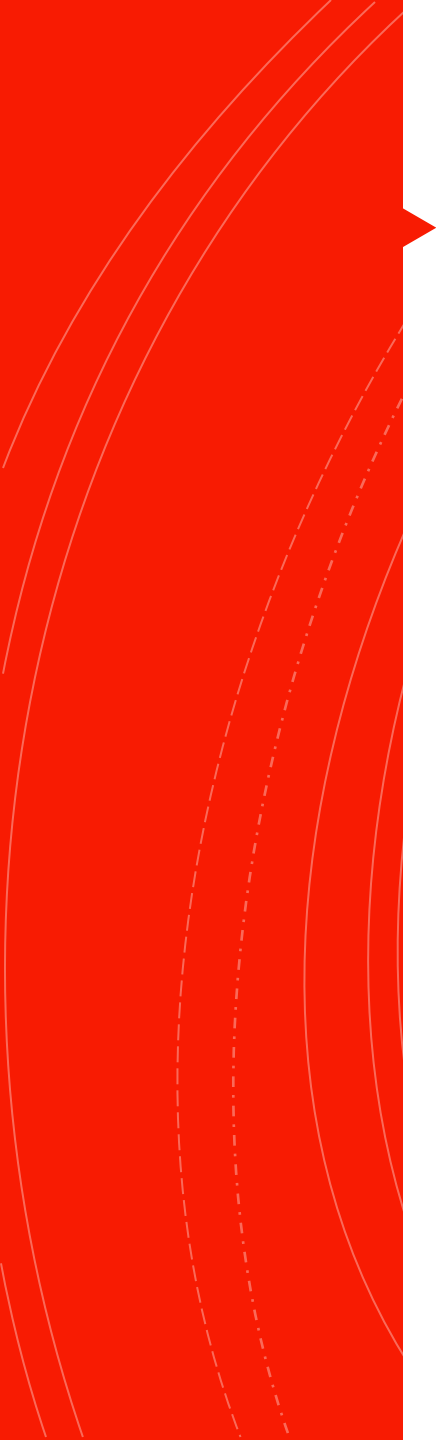


Racism and sexism in computing technology

Social and Ethical Issues in Computing

University of Miami

Spring 2019



Can computers be racist and sexist? (or otherwise biased?)

How can we make computers less racist and sexist?



Computers (or computing artifacts)
CAN be racist and sexist



Facial recognition software

- Inherits biases from its programmers
- Underrepresentation
- Implicit biases

Joy Buolamwini's Gender Shades



<https://www.forbes.com/sites/parmyolson/2018/02/26/artificial-intelligence-ai-bias-google/#3979c5401a01>

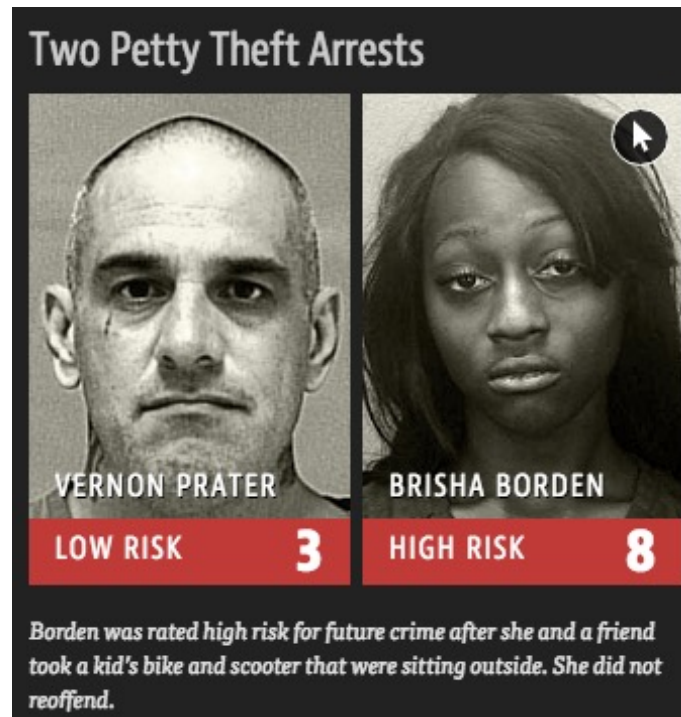
<http://gendershades.org/overview.html>

Suggestion algorithms

- Bias from user's feedback
- Learned and reinforced



Biased algorithms and social justice



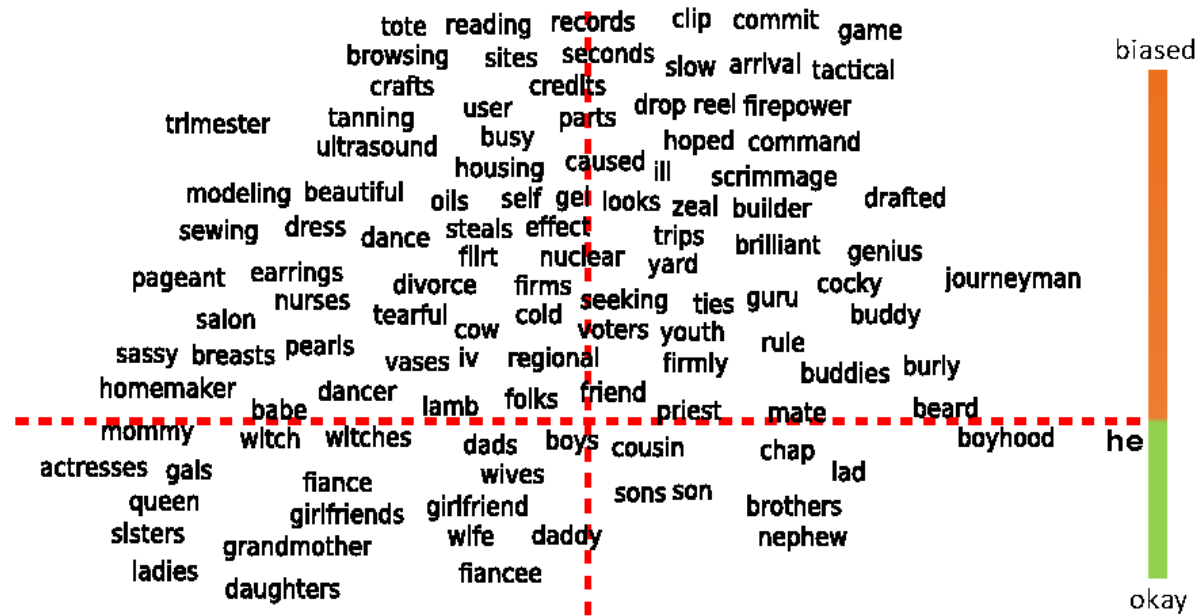
<https://www.propublica.org/article/machine-bias-risk-assessments-in-criminal-sentencing>

<https://www.popsci.com/recidivism-algorithm-random-bias>



Fighting the biases

Bolukbasi and colleagues, Debiasing word embeddings



<https://arxiv.org/abs/1607.06520>

Project Implicit




Project Implicit®

- <https://implicit.harvard.edu/implicit/selectatest.html>



Can biases be useful?

Examples?



Are there other examples of biases
in computing technology that we
should worry about?



Are there other ways of fighting
these biases?