

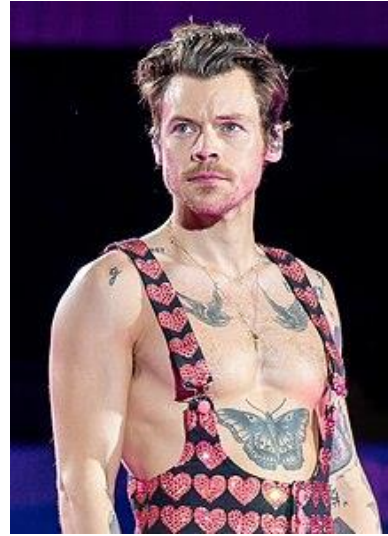
Haters gonna hate, hate, hate: Differences in online discourse about female and male pop singers

Team Project Spring/Summer 2024

Chair of Data Science in the Economic and Social Sciences

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Differences in online discourse about female and male pop singers



- Popular music is a multi-billion dollar industry
- Current *The Eras Tour* by Taylor Swift has already grossed more than 1 billion dollars [1]
- Popularity of individual singers can also spark antagonization

Differences in online discourse about female and male pop singers

Gender Bias in Music Industry and Online Social Networks

- Women are gaining ground, but are still underrepresented in popular music [2]
 - 34% of last year's Billboard Top 100 artists were women
 - Only 19.5% of corresponding songwriters were women
 - Only 6.5% of producers were women
- At the same time, gender bias and sexism are known problems in online platforms and social media. For instance, studies have found that
 - There are gender biases in Wikipedia [3]
 - There are differences in how male and female politicians are talked about on Reddit [4]
 - On Twitter, there are gender and ethnic inequalities influencing the amount of followers [5]
- However, hardly any research exists regarding such issues in discussions on popular music

Differences in online discourse about female and male pop singers

Research Problem

- The goal of this project is to analyze differences in the way female and male pop singers are talked about in online communities
- Several online platforms possible, such as
 - Twitter (API shut down though)
 - Reddit (pushshift dumps available)
 - Facebook (needs to be scraped via Meta AI)
- Broad range of potential analyses could be considered
 - Target variables such as sentiment, or sexism
 - Need to control for factors such as popularity, political orientation, etc
 - Potential differences over platforms or countries/languages
- You are free to discuss your ideas with us!

Differences in online discourse about female and male pop singers

Research Problem – Data, Tools, Challenges

- Potentially huge amounts of data requires good organization, clear analysis pipeline
- Has to be implemented in Python
- Scraping data from the web may take time to set up and run
- Need to familiarize with web scraping tools such as Selenium, text processing tools such as sentiment analyzers, or open NLP libraries as provided by HuggingFace

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Brief Logistics

- Language: English
- Duration: 6 months
- Min/Max number of participants: 4-6
- Prerequisites: **Strong** Python/programming skills, knowledge in machine learning/statistical data analysis, web mining and/or text analytics
- Work process:
 - Lots of coding, data processing and analysis
 - Regular meetings with supervisors, present and discuss your progress
 - Present your research proposal, intermediate and final results in corresponding presentation meetings
 - Written reports to be submitted at the end
- **Contact** (for questions): tobias.schumacher@uni-mannheim.de